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CHILDHOOD TUBERCULOSIS*

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In our modern civilized world, tuberculosis still remains a very important public health problem and one which has not been completely solved. It is true that our death rate has decreased 50 per cent during the past fifty years, mainly during the past twenty years. In spite of the fact that the cause of this disease, the tubercle bacillus, was discovered in 1882, the x-ray in 1895, and the tuberculin test in 1907, very little real progress in controlling the disease was accomplished until after 1915. So that, even today, in a certain age period of life, tuberculosis is the leading cause of death, that age period being between eighteen and thirty-five years. The reason for this is probably due to the lethargy on the part of the medical profession and the lay public to accept certain proven facts.

The idea is still prevalent amongst lay people that tuberculosis is an inherited disease and that because some member of our family died of tuberculosis, it is quite logical for one of us to have the disease. Shortly after Koch in 1882 discovered the germ that is responsible for tuberculosis, it was conclusively proven that this disease is an acquired one. It has been repeatedly shown that a mother who has tuberculosis or even

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dies of the disease may give birth to a baby who is entirely free of tuberculosis. However, there is one provision there, and that is that the baby be removed completely from the mother at birth. It is a natural sequence of events that if a mother who has tuberculosis nurses and cares for her baby, she will infect that child with the germ and this ultimately will probably result in disease in the child. In other words, tuberculosis is a disease acquired during life from some other individual who has the disease.

Our progress in recent years has been along two main lines, first in the curing of patients who already have the disease, and second in the prevention of the disease in healthy individuals. In tuberculosis, like many other diseases in medicine, we believe the battle will be won in the preventive field rather than in the curative one. It is true that we are curing more people with this disease today than ever before because of our newer surgical methods, but we sincerely believe that our future progress will be in discovering the disease in its earliest stages and in its prevention.

With this in mind, extensive study has been carried out in the study of the disease in school children. The medical profession had long felt that the disease was being discovered in adults altogether too late, this resulting in the high mortality and the poor results obtained in these individuals. The disease was studied in the school child in the hope that the early stages of tuberculosis could be detected and the disease prevented from reaching a grave form.

This work was begun in Wayne County three years ago. Children between the ages of five and twenty were studied. We utilized in this work two things that we had had at our command for a number of years: first the test for tuberculosis and second the x-ray machine. In the various localities where the test was given, request blanks were distributed in the schools, and those children whose parents had consented to the test were given it.

The test that was used in this survey is called the skin test for tuberculosis or the Pirquet test. It is a very simple test and entirely harmless. The tuberculin material, which contains no living germs, is rubbed into the superficial layers of the skin with a special scarifier. This is allowed to dry and the response of the body to this is noted after forty-eight hours. The response of the child to this test gives us a great deal of information. If the child fails to respond or *has a negative tuberculin test,* we report to that parent that up to this stage of life this child has not been in contact with the tuberculosis germ and has not been infected. However, we do recommend the repetition of this test at various intervals of life, namely, early childhood, puberty, and adolescence, to discover early infection.

If the child responds to the test or *has a positive tuberculin test,* we report to that parent that this child has been in contact with the tuberculosis germ and has been infected. Now, whether this infection has resulted in disease has to be discovered through other methods. Many children and adults are infected with the germ and yet never become diseased with it. This depends on numerous factors, namely, the dose or the amount of infection and the physical status of the child at the time of infection. For instance, we are aware of the fact that a child recovering from measles or whooping cough is more apt to be diseased with the tuberculosis germ, if infected, than at any other time. Likewise the hygienic surroundings of the child play an important rôle.

This important information of a positive tuberculin test is of a great value regardless of whether that infection has resulted in disease or not. The younger the child the more we are sure that that infection has resulted from the home environment of that child. The mere hearsay that no member of a family has tuberculosis means nothing, because we know that this disease can be present in adults months or years before manifesting itself in any outward signs. If an individual waits for the classical symptoms of tuberculosis, namely, coughing, hemorrhaging, night sweats and loss of body weight, that individual will usually be in the end stage of the disease which will terminate fatally. So that, until we have convinced such a family that every individual coming in close contact with that child should have a clean bill of health in reference to tuberculosis, we do not feel at ease about this child's positive tuberculin test. A careful examination by a physician of every member of that child's environment is our only safeguard for that child. So that by discovering a harmless infection in a school child, we frequently uncover an adult in the early stages of the disease, when it still lends itself to treatment and can be cured.

Having discovered the infected child, we then must determine whether this infection has been harmless or otherwise. Through extensive studies it has been shown that the only accurate method of detecting this is through the x-ray machine. All our other methods may fail us in discovering children diseased with the tuberculosis germ. The history we obtain from parents may be entirely negative, that is, we may get no complaints from the parent of poor appetite, fatigue, loss of weight, frequent chest colds, or pallor and still the x-ray may prove to be positive. However, we may get some of these symptoms in our history. Our physical examination through our senses of seeing, hearing, and touching may be entirely normal and still the x-ray of the chest may show trouble. So that we have established the rule that every child having a positive tuberculin test is requested to have an x-ray examination of the chest. The x-ray film reveals absence or presence of disease. In most instances there is no evidence of disease, meaning that the infection thus far has been entirely harmless. If the child is not in contact with an adult with tuberculosis, a positive tuberculin test in itself is no cause for worry.

The disease as found in the child is spoken of as the "Childhood Type of Tuberculosis" in contradistinction to the type as found in adults. The two diseases differ very radically, which is probably one of the reasons why it was ignored in previous years. The childhood type of tuberculosis is a disease mainly of the glandular structure in the chest. While it begins in the lung, this organ is never badly damaged, but the brunt of the disease is carried by the glands in the chest. Further characteristics are that the childhood disease is a mild one and frequently has a tendency to heal of its own accord. This explains the frequent absence of symptoms in these children. However, none of these factors detracts from the importance of discovering the childhood type of tuberculosis. It can and frequently does go on to a fatal termination in children, as our state health reports show that tuberculosis leads the list of diseases as a cause of death the first twenty years of life. Comparative figures for 1931 show tuberculosis was responsible for 453 deaths the first twenty years of life, while diphtheria caused 151, whooping cough 183, scarlet fever 94, and measles 22. Further than this, it has been conclusively shown that this childhood disease is the predecessor to the more fatal adult disease. It has been shown that about three-fourths of these children with this early form of tuberculosis will have adult tuberculosis in adult life unless something is done about it. In other words, childhood tuberculosis sets the stage for adult tuberculosis. Hence, our object in discovering the disease in the child is to prevent the adult type of disease from developing. The childhood disease is the earliest form of tuberculosis. It is in a stage when it still can be cured. True, it is usually a mild disease, but this mild disease may result in a fatal disease later in life.

In controlling the childhood disease, we must first remove the child from further infection, and second, we must deal with the child himself. In reference to the child, we must place that child in the best possible physical condition. Other diseased processes must be corrected. The rest and physical activity of the child must be adjusted to prevent fatigue. Frequently these children require additional rest during the day and at night. Often their school curriculum must be adjusted. Competitive sports and physical exercise usually require curtailing. Competitive sports are usually advised against. The various diseases of childhood which most children are subjected to are given careful consideration in these children to avert a possible breakdown of the childhood disease. Likewise during the periods of excessive strain as at puberty and adolescence, these children bear watching, as it is a common observation that girls during the period of adolescence frequently take down with the more fatal adult type of disease.

In Wayne County where the work was begun in the fall of 1930 through the efforts of the Tuberculosis and Health Society of Detroit and Wayne County, approximately 11,840 tests have been given. Over 90 per cent of these tests ranged between the years of five and fifteen. Twenty-five per cent of these children reacted to the tuberculin test, meaning that out of every hundred school children, twenty-five had been infected with the germ. Four and two-tenths per cent showed actual disease, while 1.3 per cent were suspicious of having the disease. In other words, out of every hundred children given the tuberculin test approximately five bear close observation. In addition, six high

school students already showed the adult type of disease and required active sanitarium treatment, but they responded well to treatment, because they showed the early adult form of the disease.

In conclusion, I do not believe it is at all difficult for you to see the value of discovering the childhood type of tuberculosis in our fight against this ravaging disease. We must admit that tuberculosis, especially in the young adult, is a public health problem that has not been entirely solved. We believe by skin testing all school children at various intervals of life, thereby discovering the infected child, and then by x-raying the chests of all reactors, thereby discovering the diseased child, we have a good solution to the problem. By discovering the infected child, we indirectly seek out the adult who probably still has an early curable form of the disease. Hence, the discovery of the infected child aids materially in the prevention of tuberculosis. Finally, we have uncovered the disease in the child in its earliest form and therefore are able to cure it and prevent it further from progressing to the more fatal adult form, which still remains a grave disease and often causes death.

EPIDERMOPHYTOSIS OF HANDS AND FEET

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Epidermophytosis affects the skin in various ways, depending a great deal upon the mildness or intensity of the morbid process. In itself it is a mere surface affection, but owing to the invasion of secondary infections caused by a variety of organisms, the malady may assume enormous proportions. Its favorite sites of predilection are the lateral aspects and interdigits of both fingers and toes, the plantar and palmar surfaces of feet and hands, and the ankles and wrists.

Its etiologic source may be sought in fungus habitats, such as swimming pools, shower baths, fungus infested shallow waters, bathing beaches and by contact or transmission from person to person.

Epidermophytosis is a composite of various species of trichophyton, such as t. gypsum, t. cerebriforme, t. migroides, t. rosaceum, t. violaceum, t. crateriforme and other strands.

For purposes of study epidermophytosis may be classified as follows:

1. Epidermophytosis squamosa.
2. Epidermophytosis rosacea.
3. Epidermophytosis macerata.
4. Epidermophytosis vesiculosa et bullosa.
5. Epidermophytosis exfoliativa.

EPIDERMOPHYTOSIS SQUAMOSA

This is the most common form of epidermophytosis, mostly encountered on fingers and palms, toes and soles. It occurs in the form of slightly scaly lesions, arranged on the palms and soles in a serpentine, curved, gyrate manner, while between the toes and fingers it manifests itself in concentric or irregular filmy, squamous areas. It may or may not be accompanied by pruritus, which if present is more pronounced at night. It usually attacks those who perspire freely and is due to a variety of fungi, some of which have been enumerated before.

EPIDERMOPHYTOSIS ROSACEA

It is mostly met between fingers and toes, exposing to view denuded zones variously shaped, wherefrom the horny layer of the epidermis has been removed either spontaneously or by scratching. The itching as a rule is more intense than in the former variety.

EPIDERMOPHYTOSIS MACERATA

This is but an aggravated form of the former and manifests itself in more or less extensive areas of macerated lesions; they are chiefly situated between the toes and on the plantar surfaces, occasionally encroaching upon the ankles in the form of irregularly shaped erosions. The pruritus is very pronounced in this type and the dermatologic picture resembles that of pemphigus foliaceus, from which it must be differentiated.

EPIDERMOPHYTOSIS VESICULOSA ET BULLOSA

This occurs in persons who have been the sufferers of either the squamous or the rosaceus type. When we are convinced the latter process is about at a standstill, we are not infrequently surprised at the abrupt appearance of vesicles or bullæ at the site of the former lesions, so to speak, over night without any prodromata or warning. The skin exhibits bullæ and vesicles moderately tense to the touch and accompanied by severe pruritus, that is only relieved upon evacuating their contents, which is of a viscous or serous character. After evacuating the lesions the pruritus is markedly relieved. In a few days the superimposed walls of the vesicles desiccate and eventually desquamate. The soles of the feet and palms of hands, as well as the wrists and ankles, are the favorite sites of attack. In contradistinction to the former type, it does not lay bare the cutis vera, nor does it manifest itself in the form of vividly macerated or eroded areas. When the entire morbid process is completed, the skin remains red and tender and very sensitive to external irritation of any sort. Occasional flare-ups may be expected and the process may be prolonged indefinitely and not infrequently superadded by a new morbid phase of a pityriatic nature. Chaps or fissures are one of the late symptoms and the itching is unendurable; exfoliation is slight, and the site of the dermatosis remains, even if entirely cured, in a state of persistent erythema, which shows no tendency to disappear, and which Brocq designates as erythrodermie pityriasique en plaques disseminees, or erythema perstans.

EPIDERMOPHYTOSIS EXFOLIATIVA

This is a rare form and follows any of the above described varieties. The patient does not complain of any subjective symptoms, but the skin undergoes a prolonged process of desquamation. This form is usually encountered on the plantar surfaces of the feet and between the toes. The most grotesque figures may be observed, resembling a map in its various configurations. This is the most chronic of all the forms of epidermophytosis. An exaggerated type, though perhaps more rare, may be found in the same localities; it is characterized by thick, leathery adherent lamellæ, beneath which the newly formed skin stands out in striking contrast. These lesions necessitate the frequent removal or denudation of the overlapping fixed epidermis, until the entire area is completely freed of these tenacious elements.

Diagnosis: This should not be difficult if we keep in mind that the etiologic factor is of fungous origin. The microscope is our best aid in a differential diagnosis. Scrapings of the scales on a microscopic slide to which a 10 per cent solution of sodium hydroxide has been added and examined under low power, will reveal the presence of mycelia or spores or both and thus will readily determine the diagnosis. Of course in mixed infections other organisms of the staphylococcus and colon group may be detected. When the latter organisms are superimposed upon the primary cause, we may very frequenlty establish clinically their presence in the form of a putrid, offensive odor in conjunction with marked suppuration. Lymphatic involvement in the form of lymphangitis and lymphadenitis with constitutional disturbances are not infrequently observed. Several of my cases required hospitalization and a prolonged course of treatment. At this juncture we must not forget the blood picture; in all chronic cases of epidermophytosis a complete blood count should be done, to determine the presence of eosinophilia, which is quite marked in persistent cases.

Prognosis: The prognosis is generally good, except in those cases that are complicated by secondary infection and in whom the lymph vessels and lymph glands in the groin and axillæ are implicated in the process with accompanying severe systemic disturbances. In these cases the period of healing is markedly prolonged.

Therapy: Epidermophytosis has received probably more attention in dermatological literature than 50 per cent of all existing dermatoses. From Whitfield's ointment to physiotherapy there is a wide range of remedies recommended for this most obstinate affection. We are led to believe that strong fungicides will materially affect the condition, but in this we are sadly disappointed. I most emphatically decry the indiscriminate use of the so-called Whitfield's ointment or its modified equivalent, kerolysin, and other trade preparations of similar composition. Next to it I dispute the usefulness of the x-ray, which has been repeatedly extolled in dermatologic literature for the

eradication of the morbid process. Trichophyton extract in varying dilutions from 1 to 35 to 1 to 5 is also of questionable utility. Of more evident benefit are the various dyes, such as bismuth violet and neutral acriflavine 1:1,000 swabbed over the affected areas. Potassium permanganate solution is perhaps one of the best therapeutic agents at our disposal. Ointments as a rule are not well borne in epidermophytosis of the feet accompanied by excessive perspiration and should perhaps never be used, particularly so in warm weather. Our aim should be prevention: swimming pools and the floors of shower baths should be frequently inspected for evidence of contamination by various fungi. The laxity wherewith such examinations are conducted speaks for the rising increase in ringworm of the hands and feet.

How shall a case of epidermophytosis of hands and feet be successfully treated? As evidenced from my series of cases, I would tentatively formulate the following procedure: (a) Establish the proper diagnosis by clinical and microscopic findings; if necessary, repeated scrapings of the squamous material should be made and subjected to a painstaking microscopic scrutiny. The physician will be often amply repaid by resorting to such modus operandi. (b) The use of solutions of potassium permanganate from 1:1,000 or 1:500, submerging hands and feet daily for 10 minutes. Chemically pure hyposulphite of soda solution, 1 dram to the pint, has proven of similar benefit. (c) The occasional application of the various dyes enumerated above. (d) Never forget that the parts affected should be kept scrupulously dry by dusting powders. The formula which I frequently use in my practice is as follows:

Acid Salicylici	0.60
Acid Benzoic	0.30
Thymolis	0.12
Mentholis	0.18
Pulv. Magnes. Carbon	4.0
Pulv. Zinci Stearatis	15.0
Pulv. Talci puri q.s.	120.0

M. et ft. pulv. Sig. Dust on affected parts several times a day. (e) The cautious and guarded use of the x-ray, which not infrequently acts as a boomerang by causing a violent dermatitis, which retards the process of repair.

Conclusion: Every case of epidermophytosis of hands and feet should be regarded as an entity *per se* and treated accordingly; energetic measures are unnecessary and may work harm. Judicious and careful treatment according to the procedure laid down above may in the majority of cases lead to a favorable termination.

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RETRO-PHARYNGEAL ABSCESS WITH HEMORRHAGE AND FATAL OUTCOME

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PETOSKEY, MICHIGAN

R. F., age fourteen months, was admitted to the Petoskey Hospital on February 7, 1933. The following history was obtained from the mother.

The child was taken sick with a cold and what was thought to be influenza on December 26, and was first seen by a physician two weeks later. One week after this, the throat "broke" and the child expectorated a large amount of pus. The patient continued, however, to be ill and one week before admittance was seen by Dr. E. J. Brenner, at which time the child was bleeding from the mouth, nose and both ears. Medical treatment was instituted with only slight improvement and the patient was hospitalized.

Examination at this time showed a markedly anemic child, bleeding from the mouth, nose and both ears. There was also present a severe, left cervical adenitis. Examination of the ears showed a bilateral otitis media with bleeding from both middle ears. A satisfactory examination of the throat was impossible, but there appeared to be a small necrotic or ulcerous area about 1 cm. in diameter in the mucous membrane of the pharynx on the left side, high up. There was no bulging and the site of the bleeding could not be determined. The pulse at this time was 148, the temperature was 100.2 degrees and the red blood count was 2,500,000 and the white blood count was 11,000. Differential count was, large lymphocytes 20, small lymphocytes 3, neutrophiles 69, eosinophiles 2, basophiles 1, degenerated leu-

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kocytes 1, eosinophilic myelocytes 1, large mononuclears 1, transitionals 2. Hemoglobin was 20 per cent. The patient improved under medical treatment and was discharged on February 15, 1933.

On the evening of February 21, the patient was returned to the hospital, having had a severe hemorrhage from the nose and mouth the night before. The pulse, on admittance, was 138; the temperature 99 degrees; the red blood count was 2,700,000; and the white blood count was 10,000. Hemoglobin was 22 per cent. On February 22 the patient began to shown signs of respiratory embarrassment and examination revealed a mass in the left oropharynx, seemingly retro-pharyngeal in location. A clot was protruding from the mass with some seepage of blood. Although the condition of the patient was poor, operation was deemed advisable and under a light chloroform anesthesia, the clot was removed through the opening in the mucous membrane. Profuse bleeding was at once encountered and about 300 c.c. of blood was lost before this could be stopped. The normal air passage was restored by removal of the clot, but the patient died within twenty minutes after leaving the table.

The sequence of this case was probably as follows: Retro-pharyngeal abscess with spontaneous perforation and hemorrhage, followed by hematoma formation and hemorrhage.

THE TREATMENT OF ARTHRITIS BY ARTIFICIAL FEVER: PRELIMINARY REPORT OF TWENTY CASES*

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During the course of treatment of a paretic by means of physically induced hyperthermia, it was noted that a coexisting, chronic polyarthritis was markedly benefited. A similar effect was observed in a case of intractable asthma with an ankylosing spondylitis. These results prompted the author to select and treat similarly the series of cases here reported. These cases were selected on the basis of chronicity and resistance to other forms of therapy. Markson and Osborne[2] in 1931 reported six cases of chronic infectious arthritis successfully treated with sustained artificial fever produced by diathermy. The author's method differs in that fever is produced by placing the patient in a closed, humid, electrically-heated atmosphere.

The fever-producing apparatus consists of

(1) A large wooden, air-insulated cabinet so arranged that the patient reclines on a rubber couch, with his head in the open air.
(2) Electric heating element and water vaporizer underneath the couch.
(3) Control mechanism. Body temperature is measured by a rectal thermostat and controlled by an automatic electric recording device.

TECHNIC OF TREATMENT

The meal preceding the treatment is replaced by a liberal allowance of fluids. During treatment tepid water is allowed. Otherwise the usual dietary régime is followed.

The patient is placed in the cabinet, with thermostat in position, the cabinet is closed and the mechanism put in operation. Pulse readings are made every five minutes. Blood pressure records may be made by leaving one arm of the patient outside of the cabinet. Body temperatures of 102° to 103° F. are usually attained in from forty to sixty minutes and 103° to 105° F. in sixty to ninety minutes. These levels are attained with a cabinet temperature which usually does not exceed 130° degrees. Restlessness and apprehension are allayed by distracting the attention of the patient, application of cool cloths to the head, and by massage of the head and neck. When the predetermined level of hyperthermia has been reached the main switch of the apparatus is opened, the patient is covered with a bath blanket, quickly dried and transferred to a cot in the treatment room, or sent to the ward. Heat loss is minimized by wrapping the patient in four to six heavy woolen blankets, leaving only the head exposed. The temperature level may be well sustained for from four to eight hours by the use of hot water bottles placed around the patient.

When the mouth temperature has dropped to 99° F., body massage and manipulation of affected joints and muscles are given, the patient is either showered or given an alcohol rub and discharged. The entire period of treatment usually consumes from four to six hours.

No arbitrary number of treatments, nor interval between treatments, is used. In the beginning of the series, when it was thought

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Patient	Age	Type and Duration	Involvement	Previous Treatment	Hyperthermia	Results
Miss R. A.	19	Chronic infectious 3 years.	Polyarthritis. Contractures of legs and arms. Bed-ridden 3 years.	Removal of infected teeth and tonsils. Physiotherapy, massage, Spa treatments.	15 treatments between July 1-30. 102° sustained 4 hours.	Marked improvement. Articular effusions cleared. Relaxation of contractures. Able to walk. Reports progressive improvement.
Dr. J. B.	40	Chronic Infectious 10 years.	Spondylitis. Slight involvement in knees and hands.	Eradication of all focal infections. Contrast baths.	2 treatments weekly. 101.5° F. sustained 2 hrs. 10 treatments Aug. 15 to Sept. 20.	Complete relief.
Mr. H. D.	31	Chronic Infectious 11 years.	Polyarticular joint effusions, ankylosing spondylitis. Frequent attacks of fever.	Removal of teeth. Vaccines, massage, contrast baths.	2 treatments weekly. Has had 6 treatments. Still under treatment. 102° sustained 3 hrs.	Marked improvement. Began after 3rd treatment. Swellings are subsiding.
Mrs. E. B.	37	Chronic Infectious 3 years.	Fibrous ankylosis in many joints. Partial fixation of right knee.	Removal of teeth and tonsils. Dry heat treatments.	7 treatments. 104° sustained 4 hrs. Oct. 1-17.	Improvement in muscular ability. Able to walk without aid of cane.
Miss E. S.	42	Chronic Infectious 8 years.	Destructive arthritis of right knee.	Heat treatments. Cast to knee. Vaccines. Diathermia.	10 treatments. 102°-103° sustained 4-6 hrs. Aug. 2-30.	Complete relief. Knee almost completely mobilized.
Mr. F. A.	42	Chronic Infectious.	Both shoulders.	Removal of teeth. Spa treatments.	5 treatments, 102° sustained 3 hrs. Sept. 10-25.	Improved. Able to work. Treatments discontinued on account of alcoholism.
Dr. M. M.	34	Acute G. C.	Both hips, ankles and knees.	Rest. Local heat. Intravenous vaccines. Local treatment of urethritis and prostatitis.	4 treatments, 103° sustained 4 hrs. Aug. 4-10.	No relief. G. C. infection extremely active.
Mr. M. W.	37	Probable G. C. 6 mo.	Polyarticular stiffness and periarticular swellings. G. C. 9 mo. ago.	Local G. C. treatment. Rest massage, heat treatments.	6 treatments, 102° sustained 3 hrs. July 6-24.	Complete relief.
Mr. I. Y.	44	Metabolic chronic gout 3 yrs.	Left great toe. Unable to walk for past 4 months.	Diet. Heat treatments. Immobilization of foot. Hot baths.	6 treatments. 103° sustained 2 hrs. Aug. 10-Sept. 1.	Complete relief. Able to walk without pain after 2nd treatment.
Mr. J. J.	41	Chronic Infectious 1 year.	Generalized polyarthritis. Stiffness, periarticular swelling. Evening temp. of 100 F.	Removal of all teeth and tonsils. Vaccines. Spa treatments. Contrast baths.	10 treatments. 102° sustained 2 hours. July 8-Aug. 1.	Some relief at conclusion of course. Unable to contact patient since.

Mrs. I. M.	76	Osteo-arthritis 23 yrs.	Hands, ankles and knees mainly involved. Severe pain almost constantly.	Spa treatments, 3 weekly each year without relief.	8 treatments. 101° sustained 2 hrs. Oct. 5-Nov. 2.	Marked relief from nocturnal pain. Weather changes do not produce previous disability.
Mrs. G. B.	56	Osteo-arthritis, 5 yrs.	Both knees. Joint mice.	None.	7 treatments. 102° sustained 3 hrs. July 20-Aug. 14.	No improvement during course of treatment. Patient since reports relief.
Mr. R. G.	24	Chronic Infectious 5 years.	Spine and hips. Ankylosing spondylitis, growing progressively worse.	Eradication of all focal infections found. Exercises. Spa treatments.	6 treatments, 102° sustained 3 hrs. July 15-Aug. 5.	Reports marked improvement in mobility and pain. Unable to continue treatment on account of work.
Mrs. J. G.	62	Osteo-arthritis 3 yrs.	Monarticular arthritis right shoulder.	Removal of teeth. Manipulation. Diathermy. Local heat.	8 treatments, 102° sustained 3 hrs. July 5-Aug. 6.	No improvement.
Mrs. B. B.	49	Osteo-arthritis 5 yrs.	Generalized mainly in both knees.	Thyroid medication. Hysterectomy.	12 treatments, 102° sustained for various periods. Aug. 5-Sept. 15.	Some improvement. Weather changes do not produce such marked disturbance.
Mrs. R. R.	46	Chronic Infections 1 yr.	Right sub-deltoid bursitis and left knee.	Orthopedic immobilization of shoulder. Manipulation.	10 treatments, 102°-104° sustained for varying times. July 20-Sept. 1.	No improvement.
Mrs. M. M.	38	Chronic Infectious 5 years.	Ankylosing spondylitis.	Typhoid vaccine. Manipulation. Belt. Colonic irrigation. Diet.	15 treatments, 102° sustained 3 hrs. July 10-Aug. 10. Sept. 5-Sept. 20.	Marked improvement. Can now do own housework.
Mr. G. R.	34	Traumatic 3 mo.	Lumbo-sacral. Bed-ridden 6 weeks. Followed direct trauma.	Strapping of back. Baths. Osteopathic treatment.	5 treatments, 104° sustained 4 hrs. July 1-July 10.	Complete relief.
Mr. P. M.	31	Traumatic 2 yrs.	Sacro-iliac, following strain. Constant pain.	Belt. Removal of infected teeth and and tonsils.	5 treatments, 103° sustained 2 hrs. Oct. 10-Nov. 3.	Complete relief.
Mrs. R. R. G.	43	Chronic Infectious 2 yrs.	Shoulders, knees, and hands. No clinical evidence of arthritic changes.	Injections. Removal of all teeth and tonsils. Typhoid vaccine intravenously.	4 treatments, 102° sustained 4 hrs. Aug. 20-Sept. 10.	Patient extremely unco-operative. Pronounced element of neurosis.

necessary to produce high temperatures, two treatments weekly were given. At present, using temperature levels of about 102° F., three treatments weekly for three weeks constitute a course. As many as twenty treatments over a period of five weeks have recently been given. No other therapy is administered during the period of these treatments.

PHYSIOLOGIC EFFECTS

1. Diaphoresis is profuse. Starts about 10 minutes after the beginning of treatment and continues until the blankets are removed.
2. The pulse rate increases roughly in proportion to the usual increase in infectious fevers, although in prolonged treatments, even at comparatively low levels of hyperthermia, pulse rates of 140 to 150 per minute occasionally have been noted.
3. An initial rise in systolic blood pressure is followed, as the temperature rises, by a fall in systolic and later a fall in diastolic pressure. The diastolic pressure falls, as a rule, 10 to 20 mm. during the treatment. Throbbing temporal headache occasionally occurs coincident with the fall in diastolic pressure.
4. Nausea occasionally occurs toward the end of the treatment; vomiting has never been noted.
5. In the beginning of treatment, affected joints are more painful. Toward the end of treatment relief is usually experienced. Relaxation of spastic muscle groups usually occurs soon after the onset of diaphoresis.
6. A uniform general erythema occurs as soon as hyperthermia begins and lasts throughout the period of treatment.

LABORATORY FINDINGS

The urine shows simple concentration only. The red blood cells are temporarily increased. Mild leucocytosis, however, usually persists even after the conclusion of a course of treatment. The metabolic rate is markedly increased for as long as eight to ten hours after treatment. There is a slight decrease in CO_2 combining power of the blood. Complete studies are not available, owing to lack of facilities. This work, at present, is being carried out and will be reported later.

In the majority of cases improvement in joint symptoms is noted after the first treatment, in spite of slight lassitude and some subjective sensations of weakness. No difficulty in having the patients return for treatment is experienced as has been found to be the case with the use of diathermy, as the discomfort of treatment is markedly less than when using diathermy. Joint effusions disappear promptly. Periarticular swellings are reduced in size after the first two or three treatments, as a rule. Contractures respond readily to manipulative procedures. Bony ankylosis is, of course not affected. Improvement is progressive throughout the course of treatment.

It is the belief of the author that the beneficial results obtained are explained very simply by the increased local circulation due to vascular dilatation in articular, periarticular and muscular structures. Increased metabolism in these organs also aids in this process, as explained by H. C. Bazett.[1] Many experienced observers, notably Pemberton,[3] have long felt that one important factor shown by nearly all arthritics is that of poor peripheral circulation. For this reason it has been considered unnecessary to reproduce the high fever curves that have been heretofore recommended, as the circulatory effects are just as pronounced at lower levels. That the circulatory effects persist even after the discontinuance of treatments is borne out by the statement of patients that they are free from the arthritic's usual complaint of cold extremities.

CASE REPORTS

Condensed case reports on the first twenty patients treated appear in the accompanying table.

CONCLUSIONS

1. A new method of production and control of hyperthermia is described.
2. The method is without danger and is less uncomfortable than methods heretofore described.
3. Long, sustained elevations of temperature are unnecessary to produce beneficial clinical effects in arthritis.
4. The improvement obtained seems to depend on peripheral vascular dilatation and improvement in local circulation.
5. Of a series of twenty cases of various types of arthritis, resistant to other methods of treatment, 75 per cent have shown definite improvement.
6. While the series is too short to admit of critical analysis, the method merits further study and investigation and seems to offer an advance in the treatment of arthritis.

10 PETERBORO ST.

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DIABETES IN TWINS*

CASE REPORT

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The notable incidence of diabetes in certain families and races has in the past focused attention upon the probable hereditary nature of the affection. The study of human heredity is not a simple problem, but in recent years some progress has been made, and statistics are being accumulated which are accurate and will be helpful in the future. The occurrence of diabetes in similar twins is therefore significant, as it must be regarded as presumptive evidence of hereditary transmission.

CASE REPORTS

Case 1.—C. S., aged thirty, twin (Hosp. No. 81720).

The patient, a white male, was seen in coma on March 6, 1932; he was given 40 units of insulin, and immediately transferred to the hospital.

The history was that there were no other members of the family on either side who had ever had diabetes as far as was known. The father and mother are both living and well. Diabetes was first discovered in this individual at twenty-one years of age. Dietary control had been very sporadic, although he had continued to take insulin during this time. Within the past year the insulin had been arbitrarily reduced from 20 units daily to 7 units. Nutrition and general health had been satisfactory to the patient. There was no history of chronic cough, hemoptysis, pleurisy or night sweats.

One week prior to admission he had "caught cold." Coma came on two days before admission. On the first examination the chest was negative, no pathology being found except the deep coma. The blood sugar on admission was 312 mgs. The CO_2 twelve hours later was 34; N.P.N. was 29 mgs. Blood Wassermann was negative. The urine was loaded with sugar and diacetic acid. During the first twelve hours, 110 units of insulin were given, and the blood sugar was reduced to 31 mgs., when he was given 25 grams of glucose intravenously; this was repeated in six hours, and the patient was then well out of his coma.

Course.—For a few days he did well; diet was instituted, and the diabetes was under good control with 40 units of insulin daily. On March 9 he developed a cough, and a few râles were noted in the chest. The temperature arose to 102. Cough and fever persisted and within a few days decubitus ulcers began to form on the shoulders and buttocks. Later these were incised, and free pus found. The temperature followed a septic course, ranging from 99 to 104. Weight loss continued in spite of adequate diabetic control. On March 15, x-ray of the chest revealed extensive infiltrative processes in the median and central portions of the left lung, the corresponding areas of the right lung, and a limited area in the basal peripheral portion of the upper lobe. The diagnosis was an infected bronchiectasis, and hypostatic pneumonic process. The presence of tuberculosis was regarded as doubtful. Roentgenograms repeated on March 22 and April 4 showed extension of the process, with the added suggestion of small embolic abscesses. Repeated search for the tubercle bacillus in the sputum was negative. The patient became gradually weaker, the blood sugar and urine remained normal during the last week, although the insulin requirement arose to 75 units daily, and he died on April 6.

Autopsy.—Gross findings: Extensive fulminating pulmonary tuberculosis with early cavitation, involving mainly the lower and middle lobes of the right lung and the lower lobe of the left lung. Moderate adhesions on both sides. Kidneys enlarged to one and one-half times normal size, with numerous cortical abscesses. No gross pathology of the pancreas.

Microscopic diagnosis: Bilateral pulmonary tuberculosis. Multiple cortical kidney abscesses. Chronic interstitial pancreatitis, with marked decrease in islet tissue.

Case 2.—R. S., aged thirty, homologous twin.

This twin complained of no symptoms. He admitted on questioning, however, that he had lost ten pounds in weight in the past two months, and had been drinking more water than formerly. His past history was irrelevant, except for the occurrence of diphtheria in childhood. His usual weight (his highest) was 160 pounds.

Examination disclosed a similar twin, 5 feet, 6 inches tall, weighing 150 pounds. Both twins had prematurely grey brown hair. The physical examination was quite normal except for a flushed face. The urine contained 4 plus sugar, no diacetic acid. The blood sugar was 385 mgs. per 100 c.c. of blood.

With careful dietary control and 25 units of insulin daily this twin rapidly became sugar-free, and finally was able to eat a diet of carbohydrate 264, protein 87, fat 59, total calories 1,935, with no insulin, urine sugar-free, and blood sugars ranging from 97 to 127 mgs. Following some carelessness last November his blood sugar arose to 313, and he again had to resort to insulin therapy.

In 1929 Curtis (1) reported 13 cases of diabetes in twins, 4 from Joslin's series, and 9 others collected from the literature. Five more cases have been recorded by White (2).

Pincus (quoted by White) (3) has studied Joslin's group of 513 diabetic children showing heredity, and concludes that diabetes is transmitted as a Mendelian recessive. Cammidge (4) was able to show the same thing experimentally in regard to hyperglycemia in mice. Wright (5) and many others have reported cases leading to a simi-

*Read at Grace Hospital Staff Meeting, February 10, 1933.

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lar conclusion. A Mendelian recessive explains the cases which occur in families having no known history of diabetes. It will be interesting to watch what happens in the future when some of the present group of diabetic children intermarry, as theoretically the union of two diabetics should produce 100% diabetic children.

SUMMARY

Another instance of diabetes in homologous twins is presented, which brings the total number of cases in the literature to nineteen.

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NOTES ON THE MANAGEMENT OF THE ADVANCED CANCER PATIENT DURING THE FIRST YEAR'S OPERATION OF MERCY HALL

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Mercy Hall, established October 26, 1931, was originally intended as a home for incurable cancer patients. The scope of the work has gradually increased.

Through the generosity of Miss Dorothy Brown, the old Hosmer home at 103 Eliot Street, Detroit, was obtained. Since moving here, accommodations for sixteen, then nineteen, bed patients have been maintained. Cancer cases are now accepted for treatment in all stages of the disease. Operations for malignancy are done elsewhere, the patients being transferred to Mercy Hall for convalescent care. Deep therapy is also given elsewhere, ambulantly. Radium applications are either given at Mercy Hall or in other hospitals, and patients transferred to Mercy Hall for convalescence.† An out-patient department for the diagnosis of cancer and allied diseases was opened October 1, 1932. A carefully controlled long-time follow-up clinic of treated cases, already well established at another hospital, has been transferred here. Later operating room facilities will be added.

From October 26, 1931, to October 22, 1932, seventy-three patients have been cared for.

Of the seventy-three cases, twenty came from their home or through a friend, thirteen were referred by attending physicians, forty, or somewhat over 50 per cent, were sent from other hospitals or social agencies.

About 15 per cent stayed one week or less, 45 per cent stayed one to four weeks, 30 per cent stayed one to three months, and 10 per cent more than three months.

Primary cases: So far five breast patients and three cervix patients have applied for treatment in stages where operation or radiation was indicated.

TABLE I

	Cervix	Breast	Rectum	Abdominal	Head Mouth	Misc.	Total	Per cent
Terminal	16	10	8	6	9	6	55	75%
Convalescent	1	2	1	1	5		10	14%
Primary	3	5					8	11%
	20	17	9	7	14	6	73	100%

Table I indicates these cases, separated into three groups:

1. Primary—those who applied to Mercy Hall in an early stage when operation or radiation was indicated with a fair chance of cure—11 per cent.
2. Convalescent from operations or other treatment elsewhere—14 per cent.
3. Terminal—those who entered in the far advanced or final stage of the disease and either died in Mercy Hall or elsewhere shortly afterward—75 per cent.

The convalescent group includes all body regions. The facilities were especially valuable for mouth, lip, and neck cases, some of which required prolonged convalescence or

†Harper and Woman's Hospitals have aided generously in x-ray and radium therapy.

convalescence between two or more operations or other procedures. There is frequently considerable saving in hospital expense if convalescence can be obtained where elaborate hospital facilities are not needed.

The largest group consisted of those patients who applied in the terminal stages of the disease—generally when the family was no longer able to care for them.

TREATMENT OF FAR ADVANCED MALIGNANCY

There is a growing interest generally in the treatment of far advanced malignant diseases. Concerning the medicinal therapy, considerable individualization can be practiced in the use of the few drugs necessary to insure a comfortable final period for these unfortunate individuals. Our practice has been to start with acetyl salicylate (grains five to ten and occasionally more) then combine this with phenacetine (grains three to five) or pyramidon (grains one to five). Usually after the patient's idiosyncrasies are known, two, four, or six doses of these combinations during the twenty-four hours suffice. Later codeine, starting with the half grain doses, is added. We have rarely had to increase the dose of codeine above one grain three or four times daily when combined as above.

This initial routine is very similar to that described in an illuminating article on the "Treatment of Patients with Inoperable Cancer" by Wild[2] of London, which has just come to our notice. Wild adds acetanilid, watching for cyanosis or increase in anemia, and speaks very highly of alcohol in small doses (two ounces of absolute alcohol in twenty-four hours) "as an adjunct to other anodynes, where it seems to have synergical action and increase their effect." If patients are kept warm, quiet, have plenty of fresh air, some exercise, irritating discharges cared for, the drugs need not be increased rapidly. To quote Wild again: "It is often worthwhile to be content to relieve pain, make it bearable without seeking to abolish it altogether; to do the latter needs very much larger doses of the drugs, and they soon lose their effect and have to be changed."

We have found a capsule called Gardinol (pyramidon grains four and luminal grains one and one-half) very useful. In general, however, sedatives as the bromides, amytals, etc., are not good drugs for these cases, because they produce sleep only, and no relief from pain.

A review of thirty terminal cases treated in Mercy Hall for periods ranging from one week to five to six months shows that our chief reliance has been upon codeine and aspirin in combination. Six cases required only aspirin, acetyl salicylate, phenacetine, Gardinol, etc. Twenty-one were kept comfortable, sometimes for extended periods, on codeine and aspirin, rarely more than one-half grain of codeine plus five to ten grains of aspirin every three to six hours. Seven required not more than two to four doses of morphine before death. Three cases required it one to three times a day for several days. Our gauge for the necessity of morphine has been about what Wild laid down: "If the patient can get five to six hours fairly continuous sleep, can take his food during the day, he is not suffering intolerable pain, the drug need not be increased." Many of these patients go into a quiet relatively painless coma three to six to eight days before exodus, which requires little medication.

From our experience so far, morphine has not been used as frequently as one might think. During the month of September, 1932, with ten to fifteen patients regularly under our care, most of them in terminal stages, our drug sheet shows that just eight one-quarter grain morphine tablets were used. These patients all slept six to seven hours during the night, with one to two hours nap during the day.

Morphine is often lightly given to far advanced cancer patients. It is easy, simple, and effective; but frequently the cumulative effect sets in rapidly, and then one must care for an irritated, restless, uncomfortable individual who is generally nauseated and constipated and requires large and ever increasing doses for several weeks. During the year we have taken eight patients off morphine entirely who upon entrance had been getting one-fourth grain, sometimes one-half grain, every three hours. The method we found most suitable (worked out by Miss Hazel Henderson, chief nurse) consists in giving sodium amytal in sufficient doses to keep them "groggy" or somnolent for two to three days. One tablet (grains three) repeated in one hour. Then every six hours for the first day, every eight or twelve

hours thereafter, usually sufficed. The patient is gradually allowed to come out, and no more morphine allowed. Phenacetine, aspirin, etc., according to the above régime is then given.

Of course, many terminal cancer patients have intolerable pain. This series does not happen to include any. There is need for better analgesic drugs which can be given by mouth rather than by frequent hypodermics. Wild recommends watery extracts of opium, liquid extract of opii (British Pharmacopeia) as causing less digestive disturbances and better tolerated by the patient. Auchincloss (Nelson's Loose Leaf Surgery, Volume IV) recommends trivalate, a proprietary mixture of the valerates of morphine, codeine, and cocain.

Alvarez[1] has spoken very highly of a very recent addition to our armamentarium, a new morphine derivative called dilaudid, five times as powerful as morphine HCl (from which it is derived by a slight structural change), apparently non-habit forming and not constipating. We have tried it on about a dozen patients. There were no gastro-intestinal symptoms, and patients were more comfortable, coöperative and less depressed than they had been under morphin. We are not sure, however, regarding its being non-habit-forming.‡

Pantopon we have not found of very much value over morphine. Schlesinger's solution, a powerful combination of morphine, scopolamine, and hyoscine, very shortly makes for a delirious unmanageable derelict, and, though occasionally useful, is not necessary in very many cases.

Other palliative medication and procedures should always be kept in mind. As Adair has stated, there is often too much pessimism concerning therapeutic possibilities in these cases. We have had more satisfaction in the treatment of the anemia which so often accompanies these cases than perhaps anything else. Dr. A. E. Price, with the coöperation of Parke-Davis and Company, has been giving iron, and ventriculin with iron, controlled by careful blood counts. Though all far-advanced cancer patients do not show anemia (some show blood concentration) all we have checked show a moderate leukocytosis with a marked toxic shift to the left. Iron and ammonium citrate, drams one of the 50 per cent solution three or four times a day, makes a profound change in the individual in about a week. The appetite improves; with better nutrition, much of the discomfort and general aches and pains disappear, and the patient's outlook is happier. Ventriculin with iron (Parke-Davis) grams ten twice a day is an advance; improvement seems more rapid. The disadvantage is the expense.

The best deodorant we have found for foul wounds, vaginal douches, etc., is a preparation called solupin, a pine oil preparation prepared by Wm. S. Merrell Co., Cincinnati, for general household use. Diluted 1-10 as a moist dressing changed twice daily, or as a daily douche (drams 1 to 1 pint) it seems to keep down the spread of infection in these cases, especially that due to saprophytic organisms which overwhelm some of these wounds.

Aspiration of chest and abdominal accumulations bring considerable relief. Sometimes after the first or second paracentesis re-accumulation is slower.

Nerve relief of pain is probably not made use of generally to its full therapeutic value. One alcohol injection of the fifth nerve kept an old man eighty-six years of age comfortable until he quietly passed away four weeks later.

Cordotomy, *i.e.*, dorsal division of the antero-lateral spinal cord tracts for intractable pelvic pain, has brought instant relief and made a comfortable patient out of a morphine addict under our observation. One should weigh carefully, however, the possible further duration of disease, and the possibilities of a comfortable existence under rest and the above outlined régime before subjecting a debilitated person to this delicate operation.

Intravenous lead therapy is still recommended as possibly curative in certain cases of otherwise hopeless malignancy (Alvarez).

Deep x-ray therapy and an orthopedic brace sometimes relieves the pain of spinal metastases entirely. Total recalcification of bone has taken place.

‡The clinical experience with this drug, and the experimental basis for its action have recently been rather extensively reviewed for the Council on Pharmacy and Chemistry of the A. M. A. by N. B. Eddy (J. A. M. A., 100:1032 (Apr. 1) 1933). There is general clinical experience that it produces less nausea, vomiting and constipation than does morphin. The report doubts that it is free from tolerance and addiction-producing properties

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TREATMENT OF CHRONIC ENDOCERVICITIS*

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Leukorrhea is one of the most common symptoms of pelvic disease for which women seek relief. Many women consider vaginal discharge as physiological and take it as a matter of course, but a certain percentage, whose sense of cleanliness is more highly developed, seek medical advice. If a routine speculum examination of the cervix were performed on all married female patients, the percentage of endocervicitis found would be very high. In approximately 6,000 women successively examined, Fulkerson found a little more than a third had cervical infection, and that the condition existed in 78 per cent of all cases between the ages of twenty and forty. In my experience, the most common cause of chronic infection of the cervix has been trauma during childbirth and, to a less extent, gonorrheal infection. There is also a certain small percentage of cases whose origin is non-specific, particularly in young married women who have never been pregnant and in whom no history of gonorrheal infection is obtainable nor in whom can it be demonstrated.

The most striking, but probably the least important symptom of chronic endocervicitis is leukorrhea. More disabling symptoms are low pelvic pain and backache often due to ascending infection into the uterus and pelvic ligaments, kept active by lymphatic drainage from chronic infected cervical glands. An infected cervix may act as a distant focus of infection, similar to an abscessed tooth, diseased tonsils, or infected prostate. Dr. C. H. Mayo has drawn attention to this fact in iritis and similar infections of the eye. It has been definitely demonstrated that carcinoma of the cervix is occasionally a sequela of chronic cervical erosion. The above facts are unquestionable indications for the treatment of this condition, when found, and it can only be found by routine speculum examination of the cervix.

The anatomy of the cervix is very kind toward harboring chronic infection. The mucous membrane lining the cervical canal is arranged in numerous ridges or folds and is richly provided with many deep glands. In gonorrhea, the infection spreads through these glands and folds and, when the original gonococci die out, almost invariably a secondary infection follows which remains chronic.

In the so-called erosion following childbirth trauma, the columnar epithelium of the canal is stimulated to grow downward, covering the abraded area about the external os with adenomatous tissue. These glands secrete freely and are non-resistant to infection, so, by coitus or other means, they become infected sooner or later, producing an edematous, boggy cervix. As time goes on, the slow-growing squamous epithelium of the cervix gradually spreads over this eroded area in nature's attempt to heal. These infected glands are sealed over, but they continue to secrete mucus, and form so-called Nabothian cysts.

By studying the anatomic structure of the cervix and the pathology of chronic cervicitis, it can be readily seen that the most hope of cure lies in an agent which will destroy these infected glands and allow them to be replaced by healthy tissue.

The purpose of this paper is to describe such a form of treatment, namely, cauterization of the cervix, which can be used routinely in the office and which gives uniformly excellent results in practically all cases. The scope of this office cauterization has been enlarged to take in practically all cases of endocervicitis, no matter how extensive, so that, in my practice, it has practically eliminated hospitalization for this condition, except in those cases which require other coincident surgery. Obvious advantages of office treatment are that the cost of hospitalization is saved, fear of the hospital and a general anesthetic is removed, and many women undergo treatment who would not go to a hospital.

The instrument used is a small nasal cautery with hair-pin tip. Differently shaped tips may be used, but this type is most generally satisfactory. The current is stepped down by a Wappler transformer, which per-

*Read before the Upper Peninsula Medical Society at the annual meeting, Sault Ste. Marie, Michigan, August 11, 1932.

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forms very satisfactorily. A very convenient type of table to use is a cystoscopic table with a drainage pan and pail, but this is not absolutely necessary.

No anesthetic is required. The majority of patients suffer little or no discomfort at all, but a few complain of cramp-like pains similar to a menstrual pain in the lower mid-abdomen. This pain is not unbearable and, if the cauterization is stopped momentarily, it rapidly disappears. The cervix itself is insensitive and no local pain is complained of if the cautery needle is confined to the cervix and does not touch the vaginal wall. Occasionally, when much mucus from cysts is encountered, considerable steam is produced and the patients do have a slight hot, burning sensation in the vaginal vault, but it is not unbearable.

The patient is placed in the dorsal recumbent position, with heels in stirrups, knees flexed, and thighs abducted. The foot-leaf of the table is dropped and the operator seats himself before the table similar to position for curettement. Light may be supplied by a goose-neck lamp or head-light. The cervix is exposed by a Graves speculum and the vagina is washed out with about a quart of lysol solution, using an asepto type syringe. The speculum is rotated, so that the solution comes in contact with all parts of the vagina. After sponging the cervix and vaginal walls dry, mercurochrome is freely applied. The usual technic is to make a linear cauterization in normal tissue outside the margin of the inflamed area and then thoroughly cauterize the entire outlined area en masse, going well up into the canal, but not quite to the internal os. The depth necessary to insert the cautery tip varies from ¼ to ½ inch or more, depending upon whether there are cysts or not, but the entire infected gland bearing area is thoroughly cauterized regardless of how deeply it is necessary to go and the entire procedure is done at one sitting. Mercurochrome is then re-applied and a cotton tampon, dipped in a solution of icthyol and glycerine, is inserted into the vagina well up against the cervix. A string, tied around the tampon, is fastened to the skin or the thigh with adhesive, and the patient is instructed to remove it in two days. This tampon is inserted for its soothing effects upon the walls of the vagina which have been subjected to hot steam from the cautery. The patient is instructed to return in three days and, thereafter, twice a week until complete healing has taken place. This averages about six weeks, but may occur in five or extend as long as eight weeks, depending upon the depth of cauterization.

About the third or fourth day, the cauterized area has become covered with a thick slough which has begun to soften and curl at the edges. This process of softening, or liquefaction and separation of the slough, proceeds for about two weeks, during which time there is a rather profuse vaginal discharge. At each visit, the vagina is gently syringed out with lysol solution, care being taken not to disturb the slough still attached for fear of causing bleeding. Mercurochrome is applied to the whole vagina and the patient is carefully warned not to take douches.

After the slough has disappeared, a healthy looking red granular surface is left which becomes covered with a greyish white film, as the epithelium grows out from the margin. The granular area becomes smaller and smaller, until it is entirely covered by normal epithelium, the canal being the last to heal. If the granulations become exuberant or seem to require stimulation, they are touched up with a 10 per cent silver nitrate solution, instead of applying mercurochrome. Occasionally, a few scattered pin-head areas of granulation may persist, but these readily disappear if re-touched with the cautery point.

As stated before, the entire cauterization is done at the first sitting and the cautery is not used again except as just mentioned, to stimulate tiny pin-head areas to heal over.

The possible complications in this method of treating chronic endocervicitis are pelvic infection, hemorrhage, and stenosis. Of infection, I have seen none. Hemorrhage requiring treatment is very rare, but if it does occur, it is easily controlled by re-cauterization of the bleeding point, packing the vagina tightly with gauze, and rest in bed for three or four days. However, it is quite common to have a very slight bleeding during the period between the fourth to fifteenth day when the slough is separating from the cervix, but which requires no treatment. This bleeding is due to large pieces of slough coming off without going through the process of softening and liquefaction, and the amount of bleeding depends upon the size of the blood vessels exposed in this granular surface. It is for this reason that the patient

is not allowed to douche herself. Stenosis of the cervical canal very rarely occurs and can be prevented by inserting a small cotton swab on an applicator-stick into the canal up to the internal os at each office visit after the slough has parted and granulations appear. This will break up any filmy adhesions and keep the canal open until the canal has been completely lined with epithelium.

There are a few contra-indications for the use of the cautery in treatment of the cervix. Acute vaginal or cervical inflammation should be treated with hot douches and allowed to subside before using the cautery. Also, acute endometritis, salpingitis, and pelvic cellulitis should be allowed to quiet down before cauterization is done. Pregnancy in the first three months is not a contra-indication in properly selected cases, but of course, in the face of acute inflammation or history of previous abortion, it should not be performed.

The end-result of this form of treatment is excellent. The cauterized area is covered over with a healthy pink mucous membrane and the previous erosion cannot be distinguished from the surrounding normal tissue. Abnormal secretion from the cervix has ceased and the leukorrhea cured, providing it was not also coming from some other source.

I do not believe the small office cautery produces nearly as much scar tissue as the heavy cautery which is used under a general anesthetic. The tip of the office cautery is smaller and its effect more readily controlled, and the cauterization is aimed to destroy the gland-bearing tissue only, not being plunged into the muscle tissue, thereby producing a large amount of scar.

SUMMARY

1. Chronic endocervicitis often acts as a source of infection for pelvic inflammation, inflammations of the eye, arthritis, and similar diseases.
2. Carcinoma of the cervix is occasionally a sequela of chronic erosion. Practically all cases can be treated by cauterization in the office without an anesthetic.
3. Contra-indications consist of acute pelvic or vaginal inflammations and pregnancy after the third month.
4. Complications are rare. Hemorrhage occurs occasionally, but is readily controlled.
5. The end-results are excellent, giving permanent cure with a minimum formation of scar tissue.

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THE INTRAVENOUS USE OF TRIPLE TYPHOID VACCINE IN GONORRHEAL INFECTIONS

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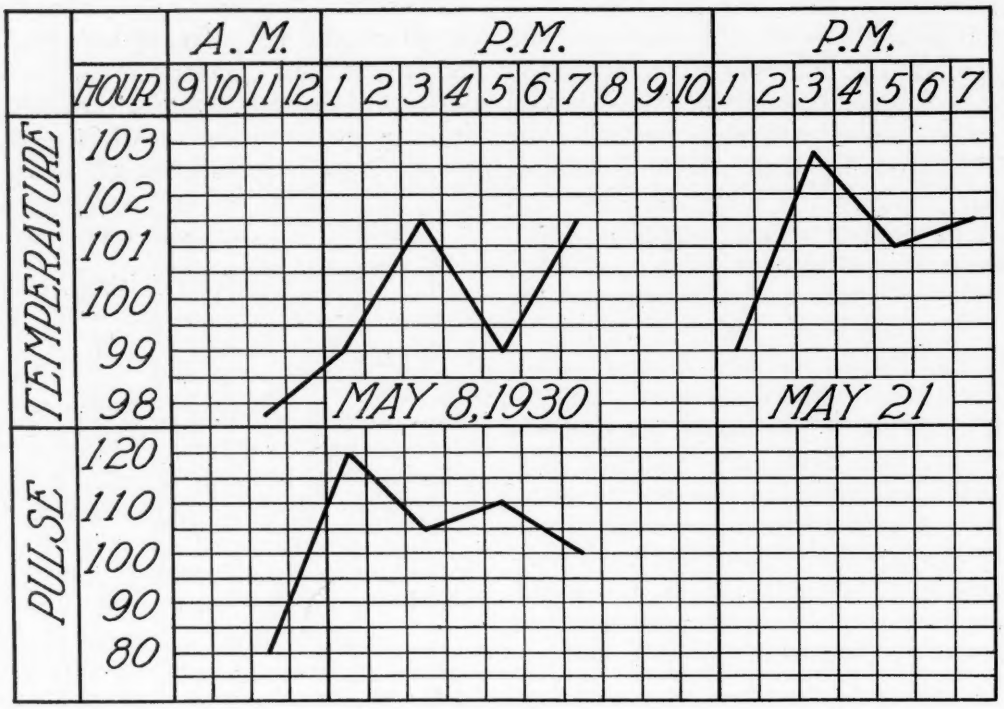
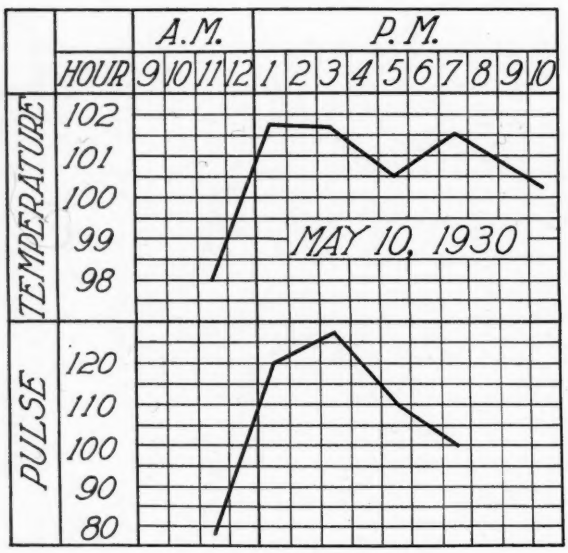
The following tables and observations were made at U. S. Marine Hospital, Buffalo, while I was in charge of the venereal wards in 1930. It was then customary to treat certain syphilitic conditions by malarial inoculations, but not always possible to secure the plasmodium, and as a substitute, intravenous injections of triple typhoid vaccine were used to create a hyperpyrexia. As I had, in private practice, occasionally used mercurochrome intravenously, with apparently favorable results in gonorrheal epididymitis, and believing the results due not so much to chemical as to thermal destruction of gonococci, I succeeded in testing this theory by treating a few cases of Neisser infection by injecting the triple typhoid vaccine intravenously, thereby inducing a marked hyperpyrexia.

The following clinical charts and notes are self-explanatory, and while not in every case complete, convinced me that the treatment was worthy of more extensive usage.

†Dr. McMillan is a graduate of the University of Michigan, M.S. 1911, M.D. 1916; Interne, Charity Hospital, Cleveland, 1916, 1917. He served as naval surgeon throughout the war, part of the time in France. During 1920 and 1921 he was pathologist to Elyria Memorial Hospital, Elyria, Ohio.



CASE A



CASE B

Case A.—Acute gonorrheal urethritis.

May 8—Developed acute epididymitis. Suspensory and ichthyol dressing. 11 A. M. intravenous injections 0.3 c.c. triple typhoid vaccine.
May 10—Swelling of epididymis much reduced.
May 10 to May 21—Little change.
May 21—1 P. M., 0.5 c.c. triple typhoid vaccine intravenously.
May 26—Epididymis nearly normal—no tenderness.

Case B.—April 23, 1930—Gonorrheal urethritis with epididymitis.

May 6—Prostate moderately swollen. Moderately large epididymis.
May 10—11 A. M. .3 c.c. triple typhoid vaccine intravenously.
May 12—Epididymitis subsiding. Prostate still slightly enlarged.

Case C.—May 13.—L. epididymis greatly swollen. 11:15 A. M. .3 c.c. triple typhoid vaccine intravenously.

May 14—Swelling of epididymis slightly subsided.
May 14 to 22—Little change.
May 22—0.5 c.c. triple typhoid vaccine intravenously. (Hour of administration not noted.)
May 24—Moderate swelling of epididymis persists, but patient states that this is no more than has been present for years. No tenderness. Urethral discharge has subsided.

Case D.—Multiple (gonorrheal) arthritis. Prostate moderately large.

May 24—At 12 noon 0.3 c.c. triple typhoid vaccine intravenously.
May 26—Feels much better. Pains in joints have subsided, but severe herpes labialis has developed.

Case E.—Acute gonorrheal epididymitis.

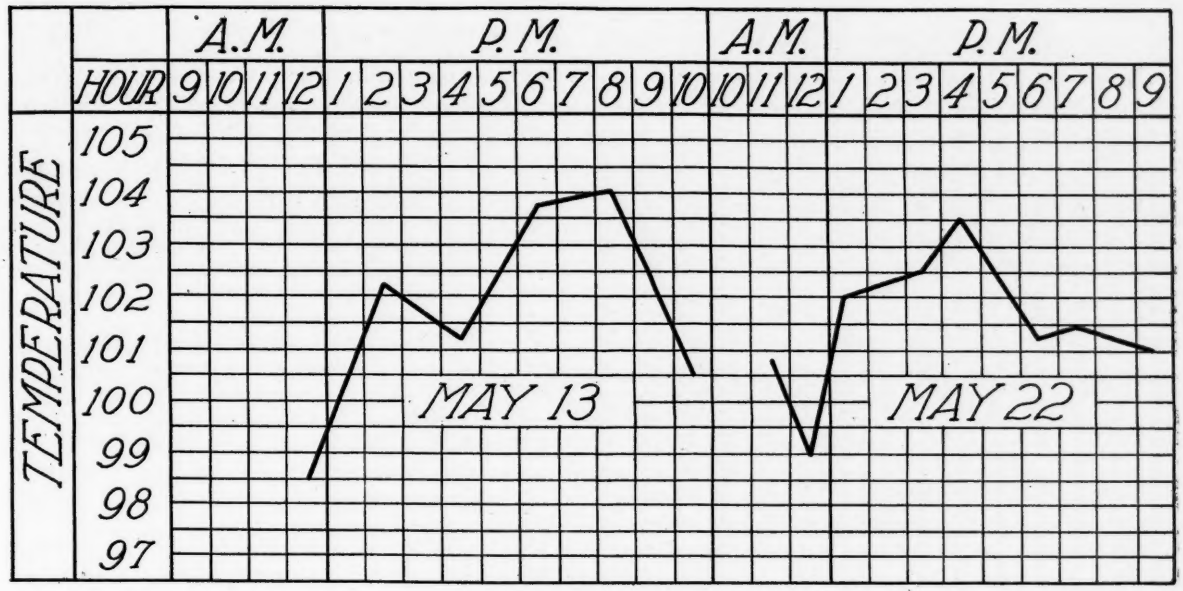
May 24—L. epididymis tender and slightly swollen. .3 c.c. triple typhoid vaccine intravenously at 1 P. M.
May 26—Epididymis normal size, not tender.

Case F.—Gonorrheal prostatism and urinary incontinence.

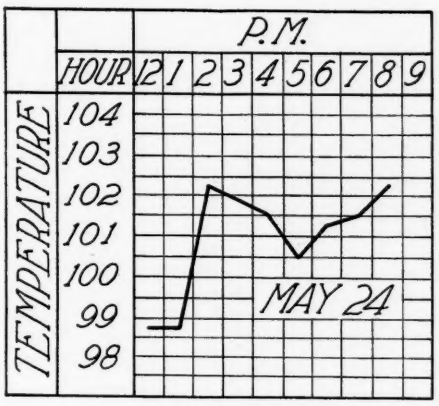
May 30—.3 c.c. triple typhoid vaccine intravenously.
May 31—Distinct decrease in prostatic swelling. Alleviation of incontinence.

Case G.—Gonorrheal epididymitis.

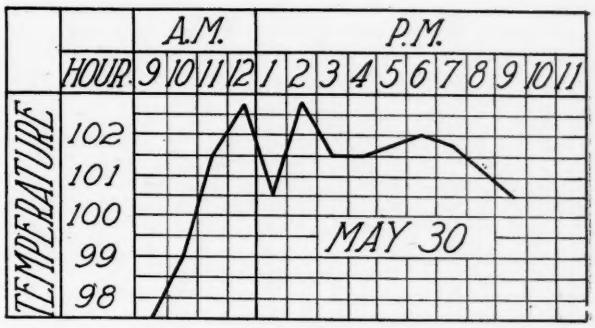
May 30—Admitted with epididymis very markedly swollen and tender. 1 P. M. .3 c.c. triple typhoid vaccine, injected intravenously.
May 31—Epididymis very noticeably diminished in size. Tenderness greatly decreased. Urethral smears positive for gonococci.



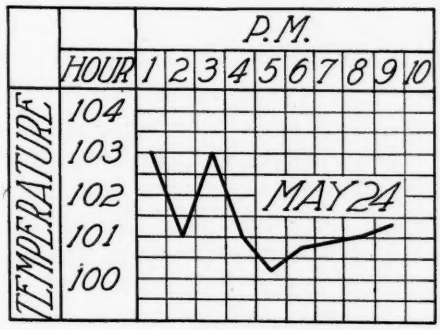
CASE C



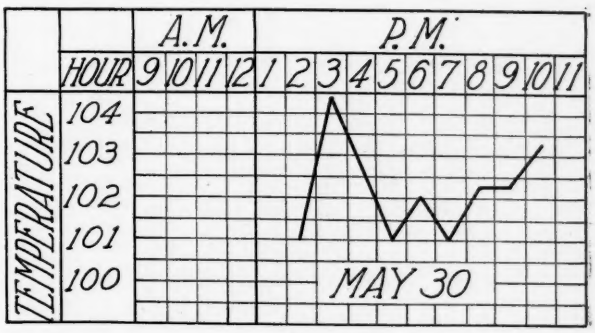
CASE D



CASE F



CASE E



CASE G

Analysis of these charts shows the following:

1. In every case a drop in temperature occurring at a period varying from two to four hours after the injection of the vaccine, and varying in amount from one to four degrees. This drop was, in every case, followed by a secondary rise of from one to four degrees. The profile curve is always dicrotic.

2. With an initial dosage of .3 c.c. the lowest fastigium is 101.5°, the highest 104.5°.

The use of this method produces great prostration and usually emesis. The effects of the second injection of .5 c.c. two or more days later is but a repetition of the clinical picture of the .3 c.c. injection, except that the second injection appears more effective than does the first to favorably influence the course of the infection. In no case in the series was albuminuria reported. In all cases the improvement noted was permanent.

Since treating this small group of hospital cases, I have been able to use the method on but four other cases, in private practice, viz.:

Case H.—June 26, 1931. Acute gonorrheal urethritis of four days' standing. At my office I injected .3 c.c. triple typhoid vaccine intravenously and permitted the patient to return to his home. He returned on the day following giving the usual reaction history, and with the urethral discharge nearly absent, although when seen on the previous day it had been copious.

On June 28, .5 c.c. was given. On the following day he again reported a violent reaction, but the discharge was totally gone, and had not recurred when seen ten days later. If it has since recurred I have no way of knowing, as he left the country about this time.

Case I.—September, 1931. Chronic gonorrhea of seven years' standing, with salpingitis and leukorrhea. Three intravenous injections of triple typhoid vaccine were given in doses of .3 c.c., .5 c.c., and .5 c.c. at four day intervals. Although the temperature curve was typical although not above 103°, it has been lost. Herpes labialis developed after the third treatment. There was a moderate decrease of tubal tenderness and almost complete cessation of leukorrhea, but vaginal smears remained positive for gonococci.

Case J.—May, 1932. Incipient gonorrheal urethritis, discharge just appearing, .3 c.c. of usual vaccine injected in attempt to abort, with argyrol also used. Disease developed in spite of this treatment. Patient refused further treatment by this method.

Case K.—September, 1932. Patient first seen with a profuse urethritis after a venereal exposure of three days before. After two treatments by usual method and dosage, discharge ceased and he has remained free until last seen in December.

It will be noted that 70 per cent of these cases, some of which were treated but once, responded in an apparently striking improvement. As some of these cases were observed for several days with usual treatments and improved markedly over night when the vaccine was used, I am led to conclude that the febrile reaction was probably the cause of the improvement. At any rate I believe it should be given a wider trial in gonorrheal conditions, particularly in prostatitis and epididymitis.

CENTRAL LAKE, MICHIGAN

MICHIGAN'S DEPARTMENT OF HEALTH

C. C. SLEMONS, M.D., Dr.P.H.
LANSING, MICHIGAN

AUTOMOBILE ACCIDENT DEATHS

At least one downward trend in 1932—the drop in automobile accident fatality—is encouraging. In Michigan, according to the report of the Bureau of Records and Statistics of the Michigan Department of Health, the number of automobile accident deaths in the state fell from 1,395 in 1931 (collision with heavier vehicles not included) to 1,130 in 1932, a saving of 265 lives. In the country as a whole, 4,500 lives were saved, motor vehicle deaths decreasing from 33,500 in 1931 to 29,000 in 1932.

Nor can such a decided drop be attributed wholly to the depression and its lowering of automobile accident expectancy. It is estimated that in the United States 7.26 per cent less gasoline was consumed in 1932 than in 1931 and 6.7 per cent less automobiles were in operation, and that in Michigan automobile registration fell 7.8 per cent. The number of persons killed in automobile accidents, however, dropped approximately 13.5 per cent in the United States, and almost 19 per cent in Michigan, leaving sufficient margin for indications of definite progress in the control of the automobile hazard.

The decrease of 265 in the number of automobile deaths for 1932 in Michigan exceeded any previous decline ever recorded, and the rate of 10.0 deaths per 10,000 automobiles registered was the lowest since 1928. Ten Michigan counties had clear records of no automobile fatalities. For all counties, deaths from vehicle accidents totalled 1,222. Eighty-six were classified as

caused by railroad and automobile collisions, six by street car and automobile collisions and 1,130 by automobiles alone. Of the 73 counties in which fatal accidents occurred, 45 showed death rates above the mean rate of 9.9 for the state. The heaviest death tolls were listed in Wayne County with 392 deaths, Oakland with 67 and Genesee with 45 deaths.

An interesting phase of the 1932 automobile mortality, particularly to those concerned with accident prevention, is the age distribution. For years one of the most regrettable features of the motor vehicle situation was that children were most frequently the victims. But in 1932 the dangerous age in Michigan appears to have been that between 20 and 24 years. There were 112 deaths in this age group, more than in any other. The 45 to 49 year and the 25 to 29 year groups ranked next, the former with 103 deaths and the latter with 101 deaths. This concentration of fatality in the adult age groups is significant. Until recently, nearly one-fourth of those who were killed by automobiles in the United States were children. Now less than one-fifth of automobile deaths are those of children. In 1932 the automobile accident mortality rate of children declined almost 17 per cent as compared with the rate for 1931, the reduction being principally in the five to nine year group. Such a saving in child life is evidence of no little success in the campaign for accident prevention conducted through schools, police departments, clubs and other coöperating organizations interested in safety education.

SUGGESTED SANITARY PUBLIC WORKS PROGRAM

A suggested plan for the expenditure of Michigan's share of the two billion dollars that it is proposed the federal legislature appropriate for a national public works program has been mapped out by sanitary engineers of the Michigan Department of Health and the Stream Control Commission. Estimated on the basis of population, Michigan's allotment would approximate $80,000,000.

The program consists of water systems and improvements, sewers, and sewage and garbage disposal projects. The total cost would be about $40,000,000. Each county would receive a share, probably prorated on the basis of population and the needs of the municipalities in the county. The remainder of the $40,000,000 may be spent on highway construction, power development and similar projects.

The sanitary public works program is, of course, entirely tentative, depending first upon the appropriation of the funds and second upon the terms upon which they are made available.

COMMUNICABLE DISEASES IN MICHIGAN

There are no new trends in the communicable disease incidence departing from those mentioned in the last issue of the JOURNAL.

The prevalence of typhoid fever continues low for the season. Smallpox is almost, if not entirely, non-existent in the state at present. Diphtheria is at the lowest ebb since Michigan was included in the registration area. Scarlet fever continues high, in fact, higher than for several years, but at the present writing it shows some tendency toward a decline. Measles continues high in Detroit and southeastern Michigan. German measles has been usually high elsewhere but on the whole appears to be at the peak and about to decline.

Two or three rather unusual clinical characteristics of German measles have been reported. Several physicians have noted recurrent attacks of the disease in some individuals at intervals of a few weeks. In a few cases as many as three attacks two or three weeks apart have been reported. The disease seems to have been contracted by a large number of adults. An extreme enlargement of the lymph nodes has been noted in some cases. In many instances the disease has closely resembled scarlet fever, a not unusual feature.

EATON COUNTY HEALTH DEPARTMENT

The office of the Eaton County Health Department was opened in the Court House, Charlotte, on March 7. The staff consists of W. J. Davis, M.D., Director, Eliza J. Smith, R.N., Nurse, Lyman B. Chamberlain, Sanitary Inspector, and Miss Stone, Clerk. Cooperating nurses are Flora Burghdorf, working in the Charlotte Schools, and Roberta Foote in the Eaton Rapids Schools. The unit is financed largely by the W. K. Kellogg Foundation. It will be operated on a plan similar to that of the Barry and Allegan County units, which are also financed

in larger part by the W. K. Kellogg Foundation.

MOUTH HYGIENE

A very interesting observation has recently come to the attention of the director of the Bureau of Mouth Hygiene.

Occasionally during recent years he participates near Lansing in the examination of preschool children in the annual Summer Round-Up sponsored by the Parent-Teacher Associations. These are the children in the four and five year group who will enter kindergarten in the fall. The purpose is to find defects and have them corrected before the child enters school.

This spring at three places where he had been on previous Round-Ups the conditions were markedly improved. Where formerly 60 to 80 per cent had had defective teeth, this year 60 per cent had sound teeth. The change was especially marked in one year in a large consolidated school just on the edge of Lansing. Last year 70 per cent of the children had decayed teeth and in 16 per cent decay had already progressed to the abscess stage. This year 60 per cent had sound teeth and in no child had decay progressed to the abscess stage.

This improvement was due to better nutrition and general health as only one child had ever had teeth filled. It must mean better prenatal and infant diet and care. These examples are not wide enough to form general conclusions, but here at least the health education of the expectant mother has been effective. But we must remember that the children were born in 1928 and 1929 during the peak of economic prosperity. Can health education continue to show results in the face of present conditions? Further observations will be watched with interest and some anxiety.

W. R. D.

CHILD HYGIENE

A very successful series of women's classes in Macomb County has been completed by Dr. Ida Alexander. During the last week of her six weeks in that county Dr. Alexander had an attendance of 643 women and the entire course was unusually well attended. Dr. Alexander is beginning a similar series of classes in Cass County at the request of groups of women in that county.

Dr. Edna Walck has completed her work with women's classes in Hillsdale County and will go from there to Manistee, where she will be located for six weeks.

Child care classes are being completed by staff nurses in the rural schools. Bertha Cooper, R.N., will complete her series in Branch County within a week or two; Deane Rinck, R.N., is finishing in Jackson County; Nell Lemmer, R.N., in Lapeer County; and Julia Clock, R.N., has already completed her classes in Clinton County. Margaret Bulkley, R.N., will complete her series of classes in Berrien County within a week. The summer work of these nurses will consist of infant welfare programs in counties needing this type of work.

Martha Giltner, R.N., is continuing her prenatal program in Midland County.

AMERICAN STUDENTS IN FOREIGN MEDICAL SCHOOLS

Because of the situation created by the matriculation of numerous American students in foreign medical colleges and the difficulties associated with the admission of such students to the examinations of American licensing boards, special consideration was given the subject by the Federation of State Medical Boards in its annual session in Chicago, February 14. At this time, according to the secretary, Dr. Walter L. Bierring, the following recommendations were adopted:

1. That no American student matriculating in a European medical school subsequent to the academic year 1932-1933 will be admitted to any state medical licensing examination who does not, before beginning such medical study, secure from a state board of medical examiners or other competent state authority a certificate, endorsed by the Association of American Medical Colleges or the Council on Medical Education and Hospitals of the American Medical Association, showing that he has met the premedical educational requirements prescribed by the aforementioned association.
2. That no student, either American or European, matriculating in a European medical school subsequent to the academic year 1932-1933 will be admitted to any state medical licensing examination who does not present satisfactory evidence of premedical education equivalent to the requirements of the Association of American Medical Colleges and the Council on Medical Education and Hospitals of the American Medical Association, and graduation from a European medical school after a medical course of at least four academic years, and submit evidence of having satisfactorily passed the examination to obtain a license to practice medicine in the country in which the medical school from which he is graduated is located.

These recommendations had been previously endorsed by individual state medical licensing boards. The American student, therefore, who goes abroad to complete his medical education will do well to get in touch with the medical licensing board of the state in which he eventually intends to practice or with the Council on Medical Education and Hospitals before spending money and time, or he may find that he has made an error that will require years of study and additional expense to correct. The second recommendation serves to prevent exploitation of American students by some foreign medical schools. Obviously, the purpose of these resolutions is to safeguard the practice of medicine in the United States and to maintain the high standards of medical education that now obtain in this country.—*Journal A. M. A.*

THE JOURNAL

OF THE

Michigan State Medical Society

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JUNE, 1933

"I hold every man a debtor to his profession, from the which as men of course do seek to receive countenance and profit, so ought they of duty to endeavor themselves, by way of amends, to be a help and ornament thereunto."

—Francis Bacon

EDITORIAL

THAT SOCIAL VALUES MIGHT BE PRESERVED

One of the most unfortunate results of the present financial chaos is the effect it has had on a class of citizens that makes any country worth while, namely, its professional class; not that our sympathy is any less for others who have suffered reverses. The professional man and woman have spent long years in preparation for their life work. During this period of education the mind is of necessity trained away from any thought of commercialism, the keynote of which is profit, that characteristic of non-professional callings. The true professional mind is ruled by an ethic which takes on the nature of religion, namely service to mankind without particular regard to remuneration. This idealism is the keynote of all professions at their best; at their worst they may be anything, even to pure charlatanism. We know many men past middle age in the medical profession whose lives have been characterized by unselfish devotion to their work. No sacrifice has been too great where the interest of the patient was at stake. While modesty might cause them to hesitate to acknowledge it, a well known sentence by one of the minor Latin writers would very aptly describe them, *Homo sum et puto nihil alienum qui humanum pertinet.*

Many have found themselves in straightened circumstances at a time when they have earned a certain respite from the exactions of professional life. How often have we heard the expression, "I'm just where I was thirty years ago"? That may be true financially but in no other sense. The man is to be pitied who has not advanced intellectually in the past thirty years, who has not acquired wisdom and a philosophy of life as his decades have one by one passed into history. Physically, however, he is a different man. The zest of the early years is gone: he is no longer eager in the dawn, and weary at night. The sands of life have run that he is brought nearer the psalmist's limit, never to return. Such men have exemplified the highest type of citizenship. Without them the nation would have been very poor indeed. They have supported those institutions which make for the betterment of their fellowmen, the school, the church, philanthropy not only financially but as a beneficent influence as well. They constitute the intelligent voter. Sometimes they serve in the councils of their community and state, and when this is made possible the state and community benefit. In the interests of the great body politic this class should be accorded a measure of protection for the great service they have rendered, so that the economic cataclysm may not destroy the infinitely more important social values.

CONTRACT PRACTICE

Contract practice is a moot subject. There are conditions, however, in which it is an absolute necessity and therefore works

to the interest of every one concerned. Among such instances would be a mining or isolated lumber region. Among the main arguments against contract practice is the fact that it deprives the patient of the free choice of a physician; on the other hand one object at least of the organization contracting with physicians is economy in medical service after the principle of mass production.

However, it is not our purpose to discuss at length a subject that has already received so much attention. Whatever may be the rights or attitude of private corporations, it is an injustice to the rank and file of the medical profession, that public service corporations should engage in any form of medical practice for their employees or families of employees, inasmuch as the medical profession are large supporters of the telephone, electric light, gas and, through taxation, civic corporations as well. Were such institutions to supply groceries, fuel, and other material necessities free to their employees the injustice would have been seen and a protest made long ago.

CHECKING UP ON THE OTHER DOCTOR

It occasionally happens in the experience of most of us that a dissatisfied patient asks our opinion of the results of treatment by some other physician, or he may seek some other physician's opinion of our methods and results. If there ever was a situation in which silence is golden, it is this. There is nothing to be gained by any one in venturing a judgment of any other physician's results, unless that opinion is honestly favorable. It is never possible to ascertain all the factors with which the attending physician or surgeon had to contend. A patient is wholly unlike a mechanism, all the factors entering into the construction or repair of which are capable of measurement. Hence the difficulties of a just evaluation of a physician's treatment. Besides, such an attitude often leads to a charge of malpractice. If the most approved scientific service always produced desirable results, and the opposite produced bad results, but how often have good results followed indifferent and poor results the most approved treatment. Costly and annoying suits might be prevented if greater care were exercised to avoid being intrigued into an opinion of another's work. In our estimate of another doctor's work the lines on the tomb of Sir Walter Raleigh in Westminster Abbey are most appropriate, even while we are in the flesh: "Should you reflect on his errors, remember his many virtues, and that he was mortal."

EDITORIAL NOTES

A bill has been under consideration by the state legislature the object of which is to provide medical and surgical care for the handicapped, which leads us to pause to consider who are the handicapped? We once knew a man who worked on a farm, when due to accident he lost his right arm. He afterwards graduated from one of the most noted European universities and eventually became president of one of Canada's leading universities and was as well one of the greatest publicists of the Dominion. *Mens sana in corpore sano* is a splendid slogan, but how many sound minds have been supported by bodies that have been anything but sound! The list is a long one in science, literature and art as well as in other departments of human endeavor.

Dr. Harry B. Knapp, who edits the *Bulletin of the Calhoun County Medical Society,* has scored a good point against the alleged prohibitive cost of medical care resulting from the newer technical devices used in diagnosis and treatment. The cost is, according to Dr. Knapp, more than offset in the shortening of the disability time of sickness as well as the diminished death rate that is due largely to greater technical skill in the diagnosis and treatment of disease. The financial burden to the patient is more than neutralized by the superior service he receives.

Many employes on city payrolls are complaining that they haven't received any remuneration for periods of from two to three months. If the depression continues they will be in the same position as many members of the medical profession to whom two to three months would seem a short time to wait for the emoluments of service.

A curious condition exists in a city in England. A section of the slum population

was moved to a new sanitary area and lodged in new buildings. It was found after five years the mortality in the new section was much greater than among those who remained behind in the slum district. Conditions were investigated by the health officers who accounted for the higher mortality in the cleaner environment from the fact that higher rents stinted the inhabitants on food with the conclusion that malnutrition was a greater factor in breaking down immunity to disease than dirt. The incident cited will sooner or later illustrate conditions that may prevail in our American cities except for the fact the majority of renters have a happy faculty of letting the landlord do the fasting and worrying.

WHAT IS AN X-RAY EXAMINATION?

(Dr. E. H. Skinner in *Colorado Medicine*)

"The x-ray examination of today with its multitude of refinements provides a definite answer to many special clinical questions and affords a comfortable corroboration of most clinical observations. The x-ray examination has progressed until the radiologist is no longer satisfied to report upon suspicious shadows; it is no longer a simple photographic technic; it is not merely the taking of films, followed by the dictated report. The x-ray examination is a systematic, painstaking procedure which uses every possibility of shadow value, properly correlated with the clinical history and social career of the patient. The x-ray examination is really a clinical examination with method, mechanics, and manifest artistry."

VITAMIN C ISOLATED

Some months ago it was reported that a Pittsburgh chemist had been successful in isolating Vitamin C. The discovery had the effect of evoking the following protest from the poet of the Manchester Guardian.

O why should they isolate Vitamin C
As if it were something unclean?
I always imagined such buglets to be
The essence of health and hygiene.
So why the pursuit of this promising pup,
This bright dietetic adorner,
In terms so suggestive of rounding it up
And making it stand in the corner?

The word is too *gauche* and ungracious; it ain't
Polite to use phrases that tend
To indicate quite an unpleasant complaint
Instead of a pal and a friend;
So don't let us "isolate" Vitamin C,
Whose aim is to comfort and nourish—
He ought to be wholly unfettered and free
To multiply vastly and flourish.

O were it not wiser and fairer by far
To round up the viruses bold,
Beginning with him who produces catarrh—
The bug of that foul "common cold"?
By all means detach him and put him away
'Mid wide and deserved execrations—
While virtuous vitamins gambol and play
At large with their friends and relations.

A PHYSIOLOGICAL SETXET

"King David and King Solomon led merry, merry lives,
They had many, many concubines and many, many wives,
But when old age came o'er them
With its many, many qualms,
King Solomon wrote the Proverbs and
King David wrote the Psalms."

—Contributed by the oldest and most actively alert member of the medical profession.

BACTERIOPHAGE*

A CLINICAL AID

(With apologies to whoever wrote the first of these jingles)

The devil sat planning new ways to perplex,
New methods to trouble, annoy and to vex,
Old stunts he had tried, he no longer conceived
As sufficiently harsh to make humankind peeved.

Hand under his chin, brow knit in a frown,
He thought of the moron; he thought of the clown.
Each learned profession in turn he surveyed
Till at last he sat up. His decision was made.

He would pick on the doctor, he had right at hand
An excellent tool that was his to command
The bacillus, the coccus, the whole micro crew
Had served for his ends; he could use them anew.

His scheme was immense, and he wasted no time
To put into effect an idea so sublime
With a hiss and a pass he produced a mirage
A thing without being—bacteriophage.

To make it real hellish, a devilish fact,
He chose for its home the intestinal tract.
His cunning displayed for full well he knew
From thence it would spread, be ubiquitous too.

To bacterial cultures it soon found its way,
Their prompt disappearance at first caused dismay,
But then it was seen by researchers wise
How an obvious nuisance might turn out a prize.

Its potent effect in the test tube no doubt
Inside of the body might turn to account.
This reasoning then caused the devil to grin
And he sat back and watched for the fun to begin.

On each boil and pimple, on each painful stye,
On felon and ulcer they tried to apply
This potent new principle—fortunate age
To enlist in its service, bacteriophage.

There are those who believe, there are those who deny,
There are many indeed who won't even try
To apply to a wound the essence of dung
To use it in treating a heart or a lung.

The trouble thus started continues to grow,
Provides for the devil a hell of a show
As he sits in his Hades and watches the fun
Of a clinical argument fairly begun.

*The author of this poem, who wishes to remain anonymous, is a scientist who devotes his entire time to laboratory work. He is an occasional contributor to the program of the annual meetings of the Michigan State Medical Society.

SOCIETY ACTIVITY

REPORT OF THE COMMITTEE ON SURVEY OF STATE MEDICAL AND HEALTH AGENCIES

This report, the first of its kind, is being sent to officers and delegates the early part of June. After some two years of most persistent and diligent work on the part of Chairman Marshall and every member of his committee, and after an investment of nearly ten thousand dollars, the findings of the committee, its conclusions and recommendations are now presented to the House of Delegates and our members.

Comment is directed first upon the physical features of the report. The copy and charts are stereo-printed. The report contains 254 pages, with a total of some 135,000 words. The report was written by the subcommittees, the Director of Study and the committee members. It was reviewed and edited at committee meetings.

Every factual statement was checked and supported by evidence in the hands of the committee. Tabulations and computations were made from reports received by the committee, from questionnaires and investigations. The charts and graphs were made from collected factual data. The final summary was drafted in committee sessions. Collectively and individually many conferences were held with sources of information and with representatives of concerned agencies and organizations.

The committee's work was a most stupendous one. One not familiar with the details and procedures has no conception of the time that was consumed in committee work. A rough estimate is that each member gave at least ninety full days of his personal time. In one of the final committee sessions the committee secluded itself and did not leave their hotel rooms for forty-eight hours. The chairman has devoted one afternoon a week for over nine months in investigations that took him away from his home city. Similar contributions were made by his committee members. This report evidences a wonderful personal contribution for which our members are deeply indebted to those who were so sincerely faithful in their labors and the duty that was imposed upon them.

As a result of these efforts this exceptional and outstanding report is now presented. It is the first of its kind as far as we know. We are not aware of any state having made so complete a study. That fact alone causes the report to be of added value.

Final comment is withheld at this time. Before recording a final appraisal it is desirable to ascertain the reactions and opinions that the report evokes. These will be recorded and imparted at a later time.

It is recommended that:

1. Ample time be devoted to the reading and studying of the factual data contained in the report. Delegates should thoroughly familiarize themselves with all the facts uncovered by this study.
2. Endeavor to apply the findings to conditions in *your* county and formulate a local application in order that you may present a local program of policy and activity.

Inquiries or further requests for specific facts will be promptly answered by the State Secretary. Elsewhere in this issue will be found the call for a special meeting of the House of Delegates that will convene in Lansing, July 12, to receive this report.

The report is a contribution of the Michigan State Medical Society to public welfare.

OFFICIAL CALL
SPECIAL MEETING OF THE HOUSE OF DELEGATES

Grand Rapids, Michigan, May 31, 1933

To Officers and Members
County Medical Society

A special meeting of the House of Delegates of the Michigan State Medical Society is hereby called to convene in

Lansing, Michigan
On Wednesday, July 12, 1933, 10:00 A. M.
Ball Room—Hotel Olds

The purpose of this meeting is to receive the report of the Special Committee on Survey of State Medical and Health Agencies and—

1. To consider means whereby the report may be studied further and formulated into recommendations for submission to and action by the House of Delegates at its annual meeting in September.

2. To give further instructions to the Survey Committee.
3. To transact such other business as the Council may present to the House of Delegates for consideration.

County Societies should promptly designate their delegates and immediately certify their names to the State Secretary in order that credentials may be forwarded to each delegate. Each County Society is authorized to elect or appoint the same number of delegates that were certified to the last annual session.

By Order of the Council
B. R. CORBUS, *Chairman*
J. M. ROBB, *President*
H. J. PYLE, *Speaker*

Attest:
F. C. WARNSHUIS, *Secretary.*

NOTE:—The Credentials Committee will convene at 9:00 A. M. Delegates must file credentials with this committee in order to be seated. Please send in names of your delegates to the State Secretary at the earliest possible moment.

SCHEDULE OF CONFERENCES for the Study of the Report of Survey of State Medical Services and Health Agencies

* * *

Presidents, Secretaries and Delegates will convene as indicated in this schedule. These County Society representatives should arrange so that nothing will interfere with attendance. Bring your copy of the report.

REGIONAL CONFERENCES

Place	Date	Meeting Room	District	Assignment
Detroit 1st District	(To Be Arranged by Councilors and Delegates from Wayne County)		Wayne County	Brunk-Carstens Estabrook
Kalamazoo 4th District	June 23	Kalamazoo—6:00 P. M. Burdick Hotel	Kalamazoo-Calhoun Branch-St. Joseph Cass-Van Buren Berrien-Allegan	 Boys-Gorsline Christian Hafford
Ann Arbor 14th District	Tuesday June 20	Michigan Union 12 M. Ann Arbor	Washtenaw-Lenawee Monroe-Livingston	Bruce-Sinai
Pontiac 15th District	Tuesday June 20	Heldenbrand Hotel 6:30	Oakland-Macomb	Baker
Lansing 2nd District	Thursday June 29	Hotel Hayes Jackson, 5:00 P. M.	Hillsdale-Eaton Ingham-Jackson	McIntyre Christian
Port Huron 7th District	Thursday June 29	Harrington Hotel 4:00 P. M.	St. Clair-Sanilac Huron	Heavenrich Estabrook
Flint 6th District			Genesee-Lapeer Shiawassee-Clinton Tuscola	Cook Marshall
Bay City 10th District	Thursday June 22	Bay City Wenonah Hotel 6:30 P. M.	Bay-Saginaw- Midland-Gladwin Arenac-Isabella- Clare-Roscommon Ogemaw-Iosco-Alcona Gratiot	 Powers Urmston Marshall Christian
Grand Rapids 5th District	Wednesday June 21	Grand Rapids University Club— 6:00 P. M.	Kent-Barry-Ottawa Ionia-Montcalm Muskegon	Corbus LeFevre Warnshuis
Big Rapids 11th District	Tuesday June 20	Western Hotel 6:30 P. M.	Oceana-Newaygo-Mecosta Mason-Lake-Osceola Wexford-Missaukee	 Treynor Warnshuis
Traverse City 9th and 13th Districts	Thursday June 8	Park Place Hotel 6:00 P. M.	Manistee-Benzie- Leelanau-Gd. Traverse Kalkaska, Antrim- Charlevoix-Emmett- Cheboygan-Presque Isle Alpena-Montgomery Oscoda-Crawford	 McMullen Van Leuven Sinai

CENTURY OF PROGRESS MEDICAL BOOTH

Chicago, Illinois
May 5, 1933.

Dear Doctor:

You are doubtless aware of the fact that during the summer of 1933 The Century of Progress Exposition is being held in Chicago.

Chicago Medical Society has a booth in the Hall of Science Building in Group K. In this booth we will have information for the visiting physicians and will be glad to assist any of the members from your State in every way possible.

The Woman's Auxiliary of the Chicago Medical Society will welcome the wives and daughters of physicians.

I trust we will have the pleasure of meeting a large number of physicians from your State and of being some help to them.

Yours very truly,
COMMITTEE—CENTURY OF PROGRESS,
WILBUR POST,
JULIUS HESS,
HUGH N. MACKECHNIE, *Chairman.*

TWENTY QUESTIONS—TWENTY ANSWERS

1. As a member of your County and State Medical Society what is your standing in the American Medical Association?
2. What state medical society instructed its A. M. A. delegates to introduce the resolution that created the A. M. A. Council on Pharmacy and Chemistry?
3. What restrictions are placed on advertisements relating to drugs or therapeutic remedies?
4. What Council approves hospitals as suitable for interne training?
5. Where do you file your state license to practice?
6. Have you a right to impart to insurance companies information that you gained in treating a patient?
7. What precautions should you observe when treating fractures?
8. What are the requirements to become a Fellow of the A. M. A.
9. Who may participate in the program and discussions of the A. M. A. scientific sections?
10. After what length of time are claims for malpractice outlawed?
11. Upon whom does the responsibility rest for the acts of assistants and anesthetists in a surgical operation?
12. When and where was the present plan of organization of the A. M. A., State and County Medical units adopted?
13. What unit determines membership eligibility in the state and national bodies?
14. When have you the right to operate without the patient's or the patient's parents' consent?
15. What are the legal requirements imposed upon you when attending a confinement case?
16. Who publishes *Hygeia* and in what year was it first issued?
17. What steps should you take when threatened with suit or sued on a malpractice claim?
18. Who nominates a Councilor of a district?
19. To whom should you apply when desiring to take a post-graduate course in the subjects made available by your state medical society.
20. On what days and where will our next annual meeting be held?

(For Answers, see page 381)

MINUTES OF THE EXECUTIVE COMMITTEE MEETING

The Executive Committee of the Council met in the Hayes Hotel in Jackson on Wednesday, May 3rd, with Chairman Corbus presiding and the following members present:

Henry Cook, J. D. Bruce, C. E. Boys, Henry Carstens, President Robb, President-Elect LeFevre, and Secretary F. C. Warnshuis.

1. The Secretary presented a detailed report upon the finances of the Society. He further reported that 1,140 members had paid their 1933 dues and so far no dues had been paid by Wayne County owing to the bank moratorium. A statement was made by Councilor Carstens that the Wayne County Medical Society was giving detailed attention to the adoption of a financial program that would enable them to maintain their members in good standing. The Secretary reported upon the accounts payable and the operating obligations of the Society.

After a long discussion, on motion of Boys-Bruce, the general principle was adopted that in the matter of deceased members the Society could not establish the principle of returning the dues upon a pro rata basis, inasmuch as the Society in preparing its Annual Budget and program takes into consideration available income and is dependent upon the estimated financial income for the uninterrupted promotion of its activities. Therefore, as a general principle, the Secretary is instructed to not make any adjustment upon dues of deceased members, but when requests come from the families the Council will be glad to give individual consideration to such requests.

2. The Council having made material reductions in the appropriations and the expenses of the Society, the Secretary was instructed, upon motion of Cook-Bruce, to inform our Delegates to the American Medical Association that the State Society this year would defer only the expense of railroad and Pullman ticket and give in addition the sum of $20.00 to each delegate for hotel room.

3. The Secretary and the Chairman of the Publication Committee presented an outline of policy to govern the publication of the June, July and August issues of the JOURNAL, for the purpose of materially reducing the cost of publishing these issues to conserve the funds of the Society. Upon motion of Boys-Carstens the report was adopted.

4. The Secretary and President Robb presented an extended report upon the work of the Committee on Survey of State Medical and Health Agencies, and reviewed a number of chapters of this report that is now in the process of printing.

Discussion was then given to the devising of a plan for the distribution of the report and its early consideration by the House of Delegates. After considerable discussion it was moved by Carstens-Cook that the Secretary arrange for regional conferences within three weeks after mailing of the report to County Societies, for regional review and study of the factual findings in the report and the conclusions of the Committee.

5. It was moved by Bruce-Boys that the Secretary issue a call for a special meeting of the House of Delegates to be held in Lansing, Wednesday, July 12, 1933. This special meeting to be called for the purpose of receiving the report of the special committee on Survey of State Medical and Health Agencies; to take such action as will lead to the appointment of special committees, charged with the duty of developing a program of policy related to the application of the recommendations contained in the report, and these committees to present their special reports at the regular meeting of the House of

Delegates in September at the Annual Session of the Society; and for the transaction of such other business as the Council may refer to the House of Delegates.

6. The Executive Committee reviewed the present legislative situation and authorized President Robb to convey to the Legislative Committee recommendations related to the Bills that are now in the Legislature.

7. The Executive Committee was informed of the transfer of the headquarters of the Board of Registration in Medicine to Lansing, and that the condition under which the transfer was made has seriously disrupted the functioning of the office of the Board. A request having come to the Executive Committee for assistance, the Secretary is hereby authorized to render such service as may be desired from him to aid the Secretary of the Board of Registration to reorganize the work of that office.

8. The Secretary reported upon the preliminary arrangements that are being rapidly perfected for the Annual Meeting in Grand Rapids. These were approved. The Secretary was authorized to confer with the Director of Scientific Exhibits, Dr. German, and to use their best judgment whether such an exhibit would be conducted this year.

9. Upon motion of Boys-Carstens, the holding of further district conferences was suspended until the Fall months.

There being no further business the Committee adjourned at 10:30 P. M.

F. C. WARNSHUIS, *Secretary.*

COUNTY SOCIETIES

BAY COUNTY

The following recent meetings of the society were held:

March 8, 1933: Combined meeting with the District Nurses' Association to hear Miss Olive Sewell, R.N., Executive Secretary, Michigan State Nurses' Association.

March 22: Dr. H. A. Luce, Detroit, spoke on "The Nervous Patient as You Meet Him in Your Office." Dr. Luce was accompanied by Drs. Brunk and Geib of Detroit.

April 12: Dr. Norman Miller, Professor of Obstetrics at the University of Michigan, spoke on "Lower Urinary Infections in the Female."

April 26: Dr. Charles Brown, University of Michigan, spoke on "Peptic Ulcers." William Burns, Executive Secretary, Wayne County Medical Society, who was in the city to address the Woman's Auxiliary, gave some of the high spots in the legislative activities in Lansing.

May 3: District Post-graduate Conference at the Wenonah Hotel, Bay City. There has been an unusual interest in local medical meetings thus far this year. A larger average attendance has been maintained than at any time during the past ten years.

Dr. R. C. Pochert, East Tawas, has been transferred to the Shiawassee County Society, having become located in Owosso.

Dr. Hugh Jardine, West Branch, has been transferred to the O. M. C. O. R. O. society.

Dr. W. S. Stinson, who took over the location of the late Dr. C. A. Stewart, was received into society membership.

The death of Dr. E. A. Hoyt, Honorary Member of this and the State Society, occurred at his home in Bay City, April 28, 1933.

L. FERNALD FOSTER, M.D., *Secretary.*

DICKINSON-IRON COUNTY

The Dickinson-Iron County Medical Society held its second meeting of the year on May 12, 1933, at the Milliman Hotel, Iron Mountain, Mich. Dr. Moses Cooperstock, director of the Northern Michigan Children's Clinic, was present as guest, and twelve members from Dickinson County responded at roll call. After dinner Dr. George Boyce, President of the society, after calling the meeting to order read a letter from F. C. Warnshuis, secretary of the State Society, relative to bill before the state legislature which among other things proposes to tax the gross income of physicians 3 per cent. The secretary of our society was instructed to send telegrams to our representative and to our state senator asking their coöperation in defeating this unfair and discriminatory tax.

A letter was also read from Dr. James Bruce of the University Extension Service asking us to make free use of Dr. Cooperstock of the Northern Michigan Children's Clinic for diagnostic clinics and for programs of the county medical society meetings.

The society then heard Dr. Cooperstock speak very instructively on the subject of "Acute Rheumatic Fever in Children." The program ended with the showing of x-ray pictures on "Silicosis" by Dr. L. E. Hamlin of the Penn Iron Mining Company, of Norway, Michigan.

CHARLES P. DRURY, *Secretary.*

GRAND TRAVERSE-LEELANAU COUNTY

At the regular meeting of the Grand Traverse-Leelanau County Medical Society held on April 11, 1933, Dr. E. B. Minor, Traverse City, was elected as Delegate to the 1933 annual meeting of the Michgan State Medical Society, and Dr. E. F. Sladek, Traverse City, as alternate.

The Grand Traverse-Leelanau County Medical Society met in regular monthly session at the J. D. Munson Hospital in Traverse City on May 1, 1933, at 3:00 P. M.

The afternoon was taken up by an orthopedic clinic conducted by Dr. Carl E. Badgley of Ann Arbor, a surgical clinic with Dr. E. B. Potter of Ann Arbor doing the operating, and a thorough résumé of the treatment of appendicitis given by Dr. Potter.

Following dinner at the Park Place Hotel, Dr. Badgley gave a very comprehensive talk on the various injuries and diseases involving the shoulder joint.

Then Dr. Paul Williams of Ann Arbor gave a very scholarly and practical paper on "Sciatica and Low Back Pain."

Dr. W. S. Ramsey of Ann Arbor gave a short talk on our recent epidemic of scarlet fever, measles and German measles.

The next day our four guests were taken to a stream, where, despite a constant cold rain, they succeeded in snaring thirty-three brook trout. This is to verify or correct any story they may tell about this trip.

E. F. SLADEK, *Secretary.*

GRATIOT-ISABELLA-CLARE COUNTY

The April meeting of the Gratiot-Isabella-Clare County Medical Society with the Gratiot County Board of Supervisors, the Poor Commissioners, the County Clerk, C. L. Hicks, and Judge of Probate, James G. Kress, was held in the Wright Hotel, Alma, Thursday, April 13, 1933. Thirty-seven had dinner together, after which President T. J. Carney called the meeting to order, stating the purpose of the meeting. He first called on Dr. Kenneth P. Wolfe to describe the expense and work necessary to become a doctor.

Dr. E. M. Highfield then described some of the problems and cost of caring for the insane, feeble minded and epileptics; also explaining the sterilizing law. Dr. A. D. Hobbs then explained the cost of practicing medicine in the cities of Gratiot County.

Supervisors J. B. Smith, Miles A. Nelson, Archie Walters, and Don E. Hayes were called on to explain their problems. The Poor Commissioners, Fred Bradford, A. S. McIntyre and C. J. Chambers, also related their problems, and last, Judge of Probate James G. Kress explained some of the legal problems in the working of the afflicted adult act, the afflicted children's act and the sterilization law.

Altogether it proved to be a very profitable meeting. The general feeling was that coöperation between the poor commissioners, the supervisors and the doctors of the county should be very cordial.

Supervisor Archie Walters then called for a rising vote of thanks from the guests to the doctors for the fine supper and opportunity to discuss the above problems together.

The second April meeting of the Gratiot-Isabella-Clare County Medical Society was held in the Wright Hotel, Friday, April 28, 1933. From four to six a Clinic on Skin Diseases was conducted by Dr. Loren W. Shaffer of Detroit. Some twenty patients were examined, the doctor making the diagnosis and giving the treatment in each case.

Nineteen had dinner together, after which President Carney called the meeting to order. The applications of Dr. Lois W. Torres of Mt. Pleasant and Dr. Michael Faber of Ashley were presented, each having been recommended by the Board of Censors; by motion each was elected to membership.

Resolutions were then read in memory of Dr. Rayburn B. Smith. On motion these were adopted, with directions that a copy be sent the family and the State Medical Journal.*

Dr. Loren W. Shaffer, using lantern slides, then talked on the Diagnosis and Treatment of the more Common Skin Diseases. This talk proved very instructive and on behalf of the Society President Carney thanked Doctor Shaffer for his kindness in coming to Alma to present this subject to our society.

E. M. HIGHFIELD, M.D., *Secretary.*

SAINT CLAIR COUNTY

A regular meeting of the society was held Tuesday, May 16, 1933, at Edgewater Inn, Port Huron, Michigan.

Supper was served to three guests and sixteen members at 6:30 P. M. Meeting was called to order by President McColl at 7:40 P. M., with twenty-two members present.

The minutes of the preceding meeting were read and approved. Doctor Patterson made a preliminary report of his special committee for medical care of the indigent. Among other things he reported that the poor supervisor and the probate judge were both in favor of some arrangement with the medical society and that the supervisors' committee were willing to allow the amount appropriated in the past for medical care. However, Dr. Patterson believed we should proceed with caution because the poor allotment had been overdrawn several times recently. The amount of $90,000 spent last year would have to be divided into several parts to cover not only the remuneration of the physicians but also the cost of hospital care at Port Huron Hospital, at Pontiac and at Howell. He believed that some time would be required to work out the matter so that the interests of the profession and some slight remuneration for them would be possible. Doctor Heavenrich rose to state that he wished each member of the Society would report to the committee the number of cases treated by them at their offices or in other places as charity patients. These data are necessary to help the committee show the amount of work being done by the profession without any remuneration. Dr. Heavenrich announced a meeting to be held at Sandusky Friday evening, May 19. It was to be a joint meeting of the Sanilac and Huron County Societies and asked that as many arrange to attend from Saint Clair County as could do so.

Dr. R. T. Getty stated that it was the wish of the Boy Scout Council that the Society appoint a committee of three as a Public Health Committee to coöperate with that organization in the furtherance of any local movement along this line in our community. A motion was carried that the President appoint such a committee. Dr. A. L. Callery, Health Officer for Port Huron, announced that a supply of free biologics prepared and distributed by the State Health Organization was kept on hand at the hospital and that the members of the profession could obtain same as required.

Dr. Clarke McColl addressed the meeting upon the subject "Chronic Arthritis: Causes and Treatment" and Dr. John Mateer addressed the Society upon the subject, "Differential Diagnosis of Jaundiced Patients." Both addresses were splendid and very practical. After a discussion of the subjects the meeting adjourned at 10:20 P. M.

GEORGE M. KESL, *Secretary-Treasurer.*

SHIAWASSEE COUNTY

The Shiawassee County Medical Society recently honored two of their older members at a dinner held at the Hotel Owosso.

The two men were Dr. W. E. Ward, of this city, and Dr. J. S. Shoemaker, of New Lothrop, both of whom have completed 50 years of medical practice. Both graduated from the University of Michigan with the class of 1883.

Practically all members of the medical fraternity of the county were present at the event, besides many distinguished members of the medical profession throughout the state. Included among the guests were three former presidents of the State Medical Society, these being Dr. Arthur M. Hume, of this city; Dr. Herbert Randall, of Flint, and Dr. Carl Moll of Flint. Each spoke briefly.

The principal addresses were given by Dr. George Le Fevre, of Muskegon, president-elect of the State Society, and Dr. James D. Bruce, of Ann Arbor, who was a former office associate of Dr. Shoemaker. Dr. Bruce is at present vice president of the Univer-

*See page 381.

sity of Michigan and director of post-graduate medicine at that school.

Messages of congratulation were read, these being written by Dr. J. M. Robb, of Detroit, president of the State Society; Dr. Angus McLean, of Detroit, another former president of the State Society; Dr. F. C. Warnshuis, of Grand Rapids, secretary of the State Society, and Dr. Fred Bruce, of Venice, Calif.

A particularly pleasing letter was the one written to Dr. Ward and Dr. Shoemaker from Dr. William J. Mayo, of Rochester, Minn., who is a former classmate of both men.

Other physicians present from out of the city were: Drs. Rowley, White and Handy, of Flint; Dr. Wagley, of Pontiac; Drs. Fillinger, Taylor and Parrish of Ovid; Dr. Wade, of Laingsburg; Drs. Bailey and Crane, Corunna; Drs. Halstead, Cudworth and McGregor, of Perry; Dr. Marsh, of Bancroft; Dr. Covert, of Garner; Drs. Carney, Bates and Richards, of Durand, and Dr. Soule of Henderson.

Drs. Shoemaker and Ward were made honorary members of the Shiawassee County Medical Society and were each presented with a gift from the organization.

WOMAN'S AUXILIARY, MICHIGAN STATE MEDICAL SOCIETY

MRS. F. A. MERCER, President, Pontiac, Mich.
MRS. E. L. WHITNEY, Vice President, Detroit, Mich.
MRS. HERBERT HEITSCH, Secretary, Pontiac, Mich.

BAY COUNTY

The regular meeting of the Woman's Auxiliary to the Bay County Medical Society was held at the home of Mrs. Charles Groomes, Bay City. The usual buffet supper was served.

Following a business meeting, a pleasant social hour was spent in an old fashioned spelling bee. Most of the words were from the medical dictionary. Mrs. A. W. Herrick had charge of the program and there were twenty-eight members present.

The regular meeting of the Woman's Auxiliary to the Bay County Medical Society was held April 26, 1933, at the Duchess Tea Room, Bay City, with dinner at 6:30, for which twenty-four places were marked.

Mr. William J. Burns, executive secretary to the Wayne County Medical Society, spoke to the members on "Pending Bills in the State Legislature Which Concern the Medical Profession." He urged the members to become informed on the *facts* of the medical profession and to be able to correct any wrong ideas which come up in the other organizations.

A regular business meeting followed with Mrs. H. Payne Lawrence, president, in the chair.

Mrs. Charles Brown of Ann Arbor was guest at this meeting. Dr. Brown was speaker at the meeting of the doctors.

MRS. A. D. ALLEN, *Corresponding Secretary.*

OTTAWA COUNTY

The regular meeting of the Woman's Auxiliary to Ottawa County Medical Society was held April 11, 1933, at the Warm Friends Tavern, Holland. The ladies gathered around the luncheon table with Mrs. Winters, the president, presiding. At this time the new officers were elected and the meeting was turned over to Mrs. Kools of Holland, the new president. A social time was spent, with plans formulating for the next meeting at "Tulip Time."

GENERAL NEWS AND ANNOUNCEMENTS

The annual meeting of the American Medical Association will be held in Milwaukee June 12 to 16, inclusive.

The One Hundred and Thirteenth Annual Meeting of the Michigan State Medical Society will be held at Grand Rapids September 12, 13 and 14, 1933.

Dr. A. E. Voegelin presented a paper on "The Clinical Uses of Oxygen" before the East Side Medical Society, on April 27, 1933.

Dr. Franklin Peck of Detroit read a paper entitled Treatment of the Surgical Diabetic before the Ex-Intern Society of the Jefferson Hospital, Philadelphia.

A report of the ceremonies in connection with the unveiling of a memorial tablet to the memory of the late Dr. Walter Hulme Sawyer will appear in the July number of this JOURNAL.

County Presidents, Secretaries and Delegates have copies of the Report on the Survey of State Medical Services and Health Agencies. These copies are distributed for reference purposes.

Every member will be amply repaid if he attends the A. M. A. meeting in Milwaukee. It is suggested that if you cannot spend the entire week you at least attend the sessions on June 13, 14 and 15.

The May meeting of the Oakland County Medical Society was held on May 18, 1933, at the St. Joseph's Mercy Hospital in Pontiac, Michigan. The speaker of the day was Dr. F. A. Coller of Ann Arbor. The subject was "The Treatment of Advanced Acute Appendicitis."

CORRECTION: The obituary paragraph on the late Dr. George Slocum in the May number of this JOURNAL should have read, "Dr. Slocum graduated from the University of Michigan Medical School in 1889. He later studied under the late Dr. Flemming Carrow, Professor of Ophthalmology."

According to the report of the Board of Trustees of the American Medical Association there are 2,085 fellows of the Association and 944 subscribers who are not fellows, making a total of 3,029 receiving the *Journal of the American Medical Association* regularly in Michigan. There are 5,589 physicians in this State, making an approximate percentage of 54 receiving the *Journal of the American Medical Association.*

Dr. Frederick G. Novy, professor of Bacteriology and Director of the Hygienic Laboratory of the University of Michigan, was entertained at Flint on May 10 by 114 former students and friends, mem-

bers of the Genesee County Medical Society, at a testimonial dinner. Dr. Novy reviewed the progress of the science of bacteriology, in a very interesting address, from the beginning of Pasteur's work in 1881 to the present time.

The election of officers of the Wayne County Medical Society took place on May 16th, resulting as follows: president-elect, Dr. William J. Cassidy; secretary, Dr. E. C. Baumgarten; trustee, Dr. H. A. Luce. Dr. H. Wellington Yates, the retiring president, introduced Dr. A. W. Blain, the new president. The scientific program consisted of a paper by Dr. Dean Lewis, professor of surgery of Johns Hopkins University, who addressed an audience of about 800.

The Victor Vaughan Medical Club of Ann Arbor held its final meeting for the year at the Michigan Union on the evening of May 15th. A number of faculty members were present. The program of the evening consisted of two papers, one by Mr. Douglas on Medicine of the North American Indians; the other by Mr. Winslow on The History of Medicine in Michigan. Both papers were well prepared. They were discussed by Dr. W. B. Hinsdale, Dr. F. G. Novy, Dr. U. J. Wile, Dr. J. Sundwall, Dr. J. H. Dempster and Dr. S. S. Altshuler.

The Medical History Club of Detroit was entertained on the evening of May 13 by Mr. Carl Mellis, sculptor at Cranbrook. Mr. Mellis is one of the leading sculptors of the twentieth century. He at one time studied under Rodin. Mr. Mellis entertained the group, consisting of guests from Ann Arbor as well as Detroit. He gave an enlightening talk on the principles underlying his art, as well as reminiscences of the European sculptors of his acquaintance. After the talk Dr. B. H. Larsson, with his string quartet, entertained the group with several classical selections. The evening's æsthetic treat was followed by a buffet luncheon.

A convention of the Michigan Crippled Children Society was held at St. Joseph, Michigan, Friday and Saturday, May 5 and 6, 1933. A number of lay and professional groups were represented. Dr. Harold Fenech of Detroit was present and represented the medical profession of the State. Among the various topics under discussion was the proposed Crippled Children's Bill the purpose of which is to define the powers and limitations of the Michigan Crippled Children Commission. The bill as originally drafted contained rather sweeping clauses granting plenary powers to the commission. The committee on resolutions, however, after thorough discussion modified the provisions of the bill.

The annual clinic of the Detroit College of Medicine and Surgery Alumni Association will be held as announced in the May number of this Journal, on Monday, June 5, in the amphitheatre of Harper Hospital. President Larsson and his committee have spared no efforts to make the day one of the most profitable in the history of medical Detroit. Dr. George W. Crile of Cleveland and Dr. Walter C. Alvarez of the Mayo Clinic, Rochester, are the guest speakers. Dr. Crile will speak on the subject The Thyroid and Dr. Alvarez will elucidate his studies of The Mechanism of the Digestive Tract, In the evening a dinner will be held at the Statler Hotel at which Dr. Crile will be the speaker, his subject being The History of Anesthesia. Dr. Larsson has secured two noted musicians, namely Cameron McLean, the famous Scottish baritone, and Henri Siegle, violinist. The proceedings of the day are open to all members of the medical profession of the state whether they are graduates of the Detroit College of Medicine and Surgery or not.

The program is as follows:

Morning

College Auditorium, Mullet St. at St. Antoine

9:00 a. m. GEORGE W. CRILE, M.D., Clinic
Thyroid diseases and related conditions such as peptic ulcer, neurocirculatory asthenia, hyperthyroidism, constitional inferiority.

11:00 a. m. WALTER C. ALVAREZ, M.D. Illustrated Clinical Presentation
Clinical applications of recent discoveries in the physiology of the gastro-intestinal tract.

Afternoon

3:00 p. m. Detroit Institute of Arts—Exhibition and demonstration of Rivera's Murals.

Evening

6:30 p. m. Banquet—Statler Hotel
Speaker: GEORGE W. CRILE, M.D.
Topic: "Orthogenesis and the Power and Infirmities of Man"

Cost—Three dollars. Get your tickets early.

Class reunions, 1928, '23, '18, '13, '08, '03, '98, '93, '88, '83, etc.

All members of the profession are invited to attend.

DRS. W. E. WARD AND J. S. SHOEMAKER HONORED

The Shiawassee County Medical Society met recently at a dinner at the Hotel Owosso to pay respect to two of their members, namely Dr. Ward and Dr. Shoemaker, who had completed a half century of active practice. Both graduated from the University of Michigan with the class of 1883. The diners included practically the whole County Medical Society as well as a number of members throughout the state, including three former presidents of the Michigan State Medical Society, namely Dr. Arthur M. Hulme, Dr. Herbert Randall of Flint and Dr. Carl F. Moll of Flint. Addresses were delivered by Dr. George LeFevre, president-elect of the Michigan State Medical Society, and Dr. James D. Bruce of Ann Arbor, a former associate of Dr. Shoemaker. Dr. Ward and Dr. Shoemaker were made honorary members of the Shiawassee County Medical Society and each was presented with a fine electric clock as a gift from the organization. This JOURNAL joins in extending congratulations to Dr. Ward and Dr. Shoemaker on the attainment of fifty years of honorable service to their respective communities.

"Has any old fellow got mixed up with the boys, if so take him out without making any noise."

The May meeting of the "Seniors" of the Wayne County Medical Society was most successful. Such a large number were present that all were not able to be served with luncheon. The following members of the Class of '08 were present and signed the "Log": Drs. Wm. J. Cassidy, Emma L. Sheppard, Samuel Glassman, Henry L. Ulbrich, Herbert S. Karr, Edward B. Richey, Walton Rexford, J. M. Robb, Chas. S. Ballard, J. D. Hayes. Dr. John E. Clark (fifty-six years in active practice) presided in a manner that would make anyone of half his age envious of his vigor. The address to the Graduating Class was delivered by Dr. Chas. E. Jennings, who

modestly admits over a half century of active service to the ailing public. On behalf of the Class, Dr. J. M. Robb replied in his usual forceful and scholarly manner. It is rumored that Fred Cole and Tom Mullen were unable to be present with the other members of their Class on account of the infirmities of age. It is hoped that they will improve so as to join the group at a later date.

The following signed the roll: Drs. Louis J. Hirschman, R. E. Loucks, A. K. Northrop, J. A. McGarvah, R. S. Taylor, F. X. Zinger, Hugh Harrison, J. W. Cunningham, Jay W. Burgess, Wm. A. Hackett, R. C. Andries, Chas. Knaggs, C. D. Brooks, C. G. Jennings, John E. Clark, George E. McKean, S. W. Southwick, H. G. Palmer, J. L. Chester, Jas. B. Hodge, F. B. Ashton, David McClurg, Ignatz Mayer, J. N. Bell, D. B. Galerneau, Bruce Anderson, Jas. L. Hammond, Wm. J. Stapleton, Jr., Walter J. Cree, H. A. Luce, Rollin H. Stevens, Stephen H. Knight, I. H. Neff, Wm. E. Tyson, Neil Bentley, H. W. Hewitt, Robert Hislop, Frank T. McCormick, S. Kahn, Alex Cruikshank, R. S. Rowland, George Fay, Angus McLean, T. Malcolm Hart, R. C. Dodenhoff, Chas. F. Kuhn, A. W. Blain and A. L. Cowan.

TWENTY QUESTIONS—TWENTY ANSWERS

(Continued from page 376)

1. You are a member of the A. M. A. but not a Fellow. (See Answer 8.)
2. Michigan.
3. They must be accepted or approved by the A. M. A. Council on Pharmacy and Chemistry. It is well to remember this when salesmen call on you or mail is received.
4. Council on Medical Education and Hospitals.
5. With the County Clerk in the county or counties in which you practice.
6. No. To do so without the written consent of your patient will cause you to be liable for damages claimed and sued for by the patient.
7. To take x-rays before and after reduction and during treatment, and to call in counsel.
8. You must be a member of your county and state society, file a Fellowship application and pay annual dues of $7.00, for which you also receive the weekly issue of the *Journal of the A. M. A.*
9. Fellows in good standing.
10. Two years after the last day upon which you rendered professional services to an adult. In minors when the minor is 23 years of age.
11. The attending or operating surgeon.
12. Saratoga Springs, A. M. A. meeting in 1900.
13. The County Medical Society. It is the only avenue through which membership can be acquired.
14. When the patient is unconscious and when the nearest relative or guardian cannot be reached, and where immediate operation is necessary to save life. Even then one should seek the support of medical counsel.
15. To instill into the infant's eyes an approved prophylactic and to file a certificate of birth with the local registrar of births.
16. American Medical Association, April 1923.
17. (1) Consult medical legal advisor of your County Society. (2) Send all details to Chairman of State Society Medico-legal Committee. (3) Do not discuss the case with anyone else. (4) Do not retain local attorney unless advised by State Chairman. (5) Coöperate with State Chairman.
18. The delegates from the County Societies composing the Councilor district.
19. Director of the Department of Graduate Medicine, University Hospital, Ann Arbor, Mich.
20. September 12, 13 and 14, 1933, at Grand Rapids.

OBITUARY

DR. EVERETT A. HOYT

Dr. Everett A. Hoyt, of Bay City, died at his home on April 28th at the age of 74 years. He graduated from the University of Michigan Medical School in 1881. He began practice in Port Sanilac but moved to Bay City in 1884, where he practised to the time of his last illness. Dr. Hoyt was one of the oldest members of the Bay County Medical Society. He was an honorary member of the Michigan State Medical Society. He is survived by his widow and two daughters, Mrs. Jennie Reagan and Mrs. Carl Gunterman, both of Bay City.

DR. CONSTANTINE LEVENTIS

Dr. Constantine Leventis of Detroit died at his home May 8th at the age of 64 years. The cause of death was a heart attack. Dr. Leventis was born and educated in Athens, Greece. He came to Detroit and began practice in 1910. He turned his attention to research, particularly in tuberculosis, and, later, essential hypertension, for which he devised a treatment by means of what he termed humanized serum. He was a member of the Wayne County Medical Society, the Michigan State Medical Society and American Medical Association. He is survived by one son, Dr. Julius Leventis, of Phoenix, Arizona.

IN MEMORY OF DR. RAYBURN B. SMITH*

The Smith family lived in Ohio and in the early eighties they moved to Stockton, Kansas, where Rayburn was born on July 18, 1881. Soon after his birth the family returned to Ohio. In 1888 Benjamin F. Smith, the Doctor's father, purchased the Island in Crystal Lake, Michigan, and moved his family there in 1889. The Doctor graduated from the Crystal Public School, and taught school one term. He then entered the Saginaw Valley Medical School, where he graduated in 1903. He served one year as interne in the Saginaw General Hospital, where he died April 21, 1933, from typhoid fever.

On September 17, 1907, Doctor Smith married Inez B. Reynolds, who with two children, Reynolds, an Ensign in the Navy, and Marian, at home, survive him. The Smith and Reynolds families lived on adjoining farms in Ohio.

The doctor practised in Crystal, Michigan, for about twelve years. In 1917, after post graduate work in Chicago in eye, ear, nose and throat, he located in Alma, Michigan, where he soon gained a large practice in his chosen specialty. Patients came to see him from all the adjoining counties; frequently there would be more waiting than could be seated in his waiting room. The doctor rarely delegated any work to an assistant, his was a personal service, which made his hours long, so that he sometimes turned the key in his door in order to have time to write out his orders for glasses, and hurry away to a directors' meeting.

Doctor Smith combined to the best degree the art and science of the practice of medicine. Some doctors have the art without the science, some have the science without the art, but when you combine these two, with an attractive personality, a love for your work, and a charitable nature, you are bound

*These resolutions were read at the April 28th meeting of the Gratiot-Isabella-Clare County Medical Society and motion was made that a copy be sent to the family of Doctor Rayburn B. Smith and the State Medical Society.

to succeed. Such was Doctor Smith. He enjoyed the confidence and respect of every one who knew him. As a husband and father he was ideal. He was a member of the Presbyterian Church, where he served as President of the Board of Trustees.

As a citizen, because of his ability and unselfish nature, he was frequently drafted for service. He served two years as Mayor of Alma. He was president of the Alma School Board for nearly eight years. He was president of the Crystal Bank and one of the directors of the Alma State Savings Bank. He was a charter member of the Alma Rotary Club, a Past Master of Crystal Masonic Lodge, a member of Alma Blue Lodge and a Royal Arch Mason. He served his County Medical Society as President in 1924, and frequently acted on committees, this year being a member of the Committee on Public Relations. He was also a member and president of the Saginaw-Bay City Eye, Ear, Nose and Throat Association and a member of the Michigan State Medical Society and the American Medical Association.

We frequently eulogize the dead, but a mere recital of the times Doctor Smith was called to serve the community and his profession will convince anyone that he knew during life that this Society and the whole community held him in high regard, for his professional skill, his unselfish service, his cheerful, sunny disposition and true moral and spiritual worth. To repeat the words of his pastor at the funeral, "he did everything well and has gone to greater service."

As a society, we mourn his loss. We extend to his family our sincerest sympathy. Peace be to him, and peaceful be his rest. May his life long remain as an example to us of a truly beloved physician.

THE DOCTORS' LIBRARY

Books received are acknowledged in this column, and such acknowledgment must be regarded as a sufficient return for the courtesy of the sender. Selections will be made for more extensive review in the interests of our readers and as space permits.

MEDICAL CLINICS OF NORTH AMERICA. (Issued serially one number every other month.) Volume 16, No. 4. (Boston Number—January, 1933.) Octavo of 256 pages with 33 illustrations. Per Clinic Year, July, 1932, to May, 1933: Paper, $12.00; Cloth, $16.00 net. Philadelphia and London: W. B. Saunders Company, 1933.

MEDICAL CLINICS OF NORTH AMERICA. (Issued serially one number every other month.) Volume 16, Number 5. (Baltimore Number—March, 1933.) Octavo of 257 pages with 16 illustrations. Per clinic year July, 1932, to May, 1933. Paper, $12.00; Cloth, $16.00 net. Philadelphia and London: W. B. Saunders Company, 1933.

LIGHT THERAPY. By Frank Hammond Krusen, M.D., Director of the Department of Physical Medicine, Temple University School of Medicine, Philadelphia. Foreword by John A. Kolmer, M.D., Professor of Medicine, Temple University School of Medicine. 33 illustrations. Paul B. Hoeber, Inc., New York, 1933.

TEN YEARS OF OBSTETRICS AND GYNECOLOGY IN PRIVATE PRACTICE. By John L. Rothrock, A.B., M.D., F.A.C.S., formerly Associate Professor of Obstetrics and Gynecology, University of Minnesota. 8 vo., cloth, 222 pages, 9 illustrations. $3.00. New York: Paul B. Hoeber, Inc., 1933.

This work is a clinical report of data from an analysis of a series of 1,750 obstetrical and 1,345 gynecological cases. The author has laid stress on the clinical aspects of the more important conditions met with in obstetrical and gynecological practice.

KINESITHERAPY. A Monograph written for Oxford Medicine by A. B. Olsen, M.D., Department of Internal Medicine, Battle Creek Sanitarium.

This work is in the form of a brochure of twenty-six large pages. After an introduction going into the history of the subject the author devotes a section to a discussion of the term. Kinesitherapy is derived from two Greek words meaning motion and treatment; in other words, motion therapy. It is the scientific use of massage and exercise for hygienic or curative purposes. This monograph chapter is of particular value backed as it is by the experience of the Battle Creek Sanitarium, an institution which above all others of which we have any knowledge has carried out successfully these physical measures in the treatment of disease.

THE DUODENUM, ITS STRUCTURE AND FUNCTION, ITS DISEASES AND THEIR MEDICAL AND SURGICAL TREATMENT. By Edward L. Kellogg, M.D., F.A.C.S., Professor of Surgery and formerly Professor of Gastroenterology, N. Y. Polyclinic Medical School; Attending Surgeon, N. Y. Polyclinic and Gouverneur Hospitals; Visiting Gastrointestinal Surgeon, Broad Street Hospital. Foreword by George David Stewart, M.D., F.A.C.S.; chapter on Duodenal Parasites by Bailey K. Ashford, M.D., Sc.D., Professor of Tropical Medicine and Mycology, University of Porto Rico and Columbia University, N. Y., section on X-Ray Diagnosis by A. Judson Quimby, M.D., Professor of Roentgenology, N. Y. Polyclinic Medical School. 287 illus. (3 in color), 855 pages. Hoeber Surgical Monograph, Paul B. Hoeber, Inc., New York, 1933. Price $10.00.

This treatise on the duodenum is a welcome addition to the literature on gastroenterology. Its scope is as broad as its title allows, its content shows a wide acquaintance with the preceding literature and its viewpoint is not only mature but practical. Although the work emphasizes the diseases of the duodenum, attention is given the anatomy, physiology and bacteriology of the organ. These sections (except for the virtual omission of embryological considerations) are clearly and adequately treated in the first fifty pages of the work. A still longer section concerns the instruments and technic of examination of the duodenum. Clinical, laboratory and radiological methods are discussed in considerable detain. The section on x-ray diagnosis by Dr. Judson Quimby is illustrated by a number of well selected roentgenograms.

The greater part of the book deals with disease conditions, a chapter (or more) being devoted to each of the following conditions: duodenitis, duodenal diabetes, abnormalities of shape and position, diverticulosis, injuries, fistulæ, acute and chronic obstructions, herniæ, intussusceptions, foreign bodies, abscesses and tumors. A chapter written by Dr. Bailey Ashford deals with duodenal parasites. The discussion of disease characteristics is a complete consideration of the etiology, pathology, symptoms, diagnosis, prognosis, treatment and prophylaxis. Case reports are frequently included and a final and rather long chapter outlines operative procedures together with their indications.

Dr. Kellogg's book is well illustrated, many of the figures appearing for the first time. The illustrations, the concise method of writing and the frequent tabulations of new data and those from the literature, all aid in the clarity of the work. The volume is indexed according to subject and author and the bibliography covers a list of over three thousand references.

Altogether the work answers fully any demand for a comprehensive survey of our knowledge of the duodenum.

W. T. D.